MGV-GENOME-0305252: 5,138-16,494 (+)

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radical SAM domain protein (CDS_0022)

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tRNA splicing ligase RtcB (CDS_0029)

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MGV-GENOME-0306072: 5,156-16,781 (+)

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1920radical SAM domain protein (CDS_0021)

MGV-GENOME-0300667: 4,933-14,738 (+)

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radical SAM domain protein (CDS_0015)
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IMGVR_UViG_3300045988_139239|3300045988|Ga0495776_122010|16538-63905: 5,157-15,579 (+)

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nucleoside deoxyribosyltransferase (CDS_0013)

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radical SAM domain protein (CDS_0016)

oMTase_00015 orphan (CDS_0018)

MGV-GENOME-0299582: 5,362-14,800 (+)

14 15radical SAM domain protein (CDS_0016)

MGV-GENOME-0299744: 5,362-14,764 (+)

1516radical SAM domain protein (CDS_0017)

IMGVR_UViG_3300045988_114870|3300045988|Ga0495776_140181|1-46934: 5,362-15,138 (+)

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MGV-GENOME-0304107: 5,143-16,104 (+)

anti-Thoeris (APIS045) (CDS_0013)

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16 17 radical SAM domain protein (CDS_0018)

IMGVR_UViG_3300045988_133825|3300045988|Ga0495776_014974|1-45697: 4,353-13,903 (+)

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13radical SAM domain protein (CDS_0014)

MGV-GENOME-0298558: 4,354-14,438 (+)

1112radical SAM domain protein (CDS_0013)

MGV-GENOME-0305896: 5,320-17,273 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)

23radical SAM domain protein (CDS_0024)

MGV-GENOME-0305338: 5,139-16,527 (+)

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nucleoside deoxyribosyltransferase (CDS_0019)

20radical SAM domain protein (CDS_0021)

MGV-GENOME-0310829: 5,546-18,406 (+)

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anti-Thoeris (APIS045) (CDS_0020)

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nucleoside deoxyribosyltransferase (CDS_0024)

25radical SAM domain protein (CDS_0026)

MGV-GENOME-0311298: 5,546-17,784 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)

23radical SAM domain protein (CDS_0024)

MGV-GENOME-0312867: 5,138-17,100 (+)

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nucleoside deoxyribosyltransferase (CDS_0020)

21radical SAM domain protein (CDS_0022)

MGV-GENOME-0310453: 5,546-18,800 (+)

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radical SAM domain protein (CDS_0027)

28 oMTase_00015 orphan (CDS_0029)

MGV-GENOME-0258030: 1-6,316 (+)

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nucleoside deoxyribosyltransferase (CDS_0003)

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radical SAM domain protein (CDS_0005)
radical SAM domain protein (CDS_0006)

MGV-GENOME-0245057: 2-4,421 (+)

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radical SAM domain protein (CDS_0003)
radical SAM domain protein (CDS_0004)

MGV-GENOME-0255189: 3-6,910 (+)

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nucleoside deoxyribosyltransferase (CDS_0007)

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radical SAM domain protein (CDS_0009)

radical SAM domain protein (CDS_0010)

MGV-GENOME-0357127: 14,553-17,920 (+)

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IMGVR_UViG_3300029733_000248|3300029733|Ga0245176_100232|28919-78855: 5,546-18,224 (+)

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24radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300029469_000108|3300029469|Ga0244168_100011|70-47261: 5,299-16,045 (+)

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MGV-GENOME-0304688: 5,546-16,888 (+)

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IMGVR_UViG_2515154066_000006|2515154066|2515160149|20996-69843: 5,546-17,135 (+)

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nucleoside deoxyribosyltransferase (CDS_0020)

2122radical SAM domain protein (CDS_0023)

MGV-GENOME-0310447: 5,546-18,285 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_136339|3300045988|Ga0495776_072251|23618-71440: 5,546-16,031 (+)

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20radical SAM domain protein (CDS_0021)

MGV-GENOME-0302797: 5,548-15,675 (+)

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nucleoside deoxyribosyltransferase (CDS_0016)
17radical SAM domain protein (CDS_0018)

IMGVR_UViG_3300045988_126096|3300045988|Ga0495776_051298|17635-66061: 5,546-16,635 (+)

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nucleoside deoxyribosyltransferase (CDS_0019)

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MGV-GENOME-0296893: 5,546-14,043 (+)

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MGV-GENOME-0298098: 5,546-14,504 (+)

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MTase_II_00074 Type (CDS_0016)

MGV-GENOME-0298914: 5,546-14,537 (+)

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IMGVR_UViG_3300029390_000002|3300029390|Ga0243991_1000170|1-49150: 5,551-17,358 (+)

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IMGVR_UViG_3300029393_000306|3300029393|Ga0243986_1000059|180422-230489: 5,546-18,277 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)
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MGV-GENOME-0309752: 5,546-18,045 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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radical SAM domain protein (CDS_0028)

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MGV-GENOME-0309226: 5,343-17,838 (+)

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radical SAM domain protein (CDS_0024)

IMGVR_UViG_3300014522_000042|3300014522|Ga0169727_100001|246998-301568: 5,546-22,779 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300014557_000134|3300014557|Ga0169723_100002|147422-201841: 5,546-22,628 (+)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300029336_000296|3300029336|Ga0243752_100164|18291-73433: 5,549-23,351 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)
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28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_142521|3300045988|Ga0495776_184263|16724-67869: 5,546-19,354 (+)

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24radical SAM domain protein (CDS_0025)

MGV-GENOME-0325401: 5,344-22,206 (+)

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radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_129462|3300045988|Ga0495776_051142|1-54469: 5,362-22,758 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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uvig_430482: 5,344-25,121 (+)

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tRNA-Asp(GTC)

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membrane protein (CDS_0028)

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MTase_II_00028 Type (CDS_0031)

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33radical SAM domain protein (CDS_0034)

IMGVR_UViG_3300045988_129035|3300045988|Ga0495776_163218|1-55234: 5,546-23,525 (+)

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ParA-like partition protein (CDS_0023)

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nucleoside deoxyribosyltransferase (CDS_0026)

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MGV-GENOME-0320420: 5,546-22,663 (+)

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22 23 24 2526radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_144142|3300045988|Ga0495776_186357|16116-71639: 5,546-23,735 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)
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IMGVR_UViG_3300045988_144760|3300045988|Ga0495776_166776|16493-71941: 5,546-23,664 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

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30radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_135046|3300045988|Ga0495776_051237|16738-71315: 5,551-22,826 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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IMGVR_UViG_3300008523_000342|3300008523|Ga0115231_1000144|16659-71973: 5,344-23,523 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

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30radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_154353|3300045988|Ga0495776_051222|16743-71269: 5,548-22,732 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

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IMGVR_UViG_3300045988_144514|3300045988|Ga0495776_180186|16953-68348: 5,343-19,786 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_134637|3300045988|Ga0495776_151187|1-51030: 5,548-19,235 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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IMGVR_UViG_3300045988_143152|3300045988|Ga0495776_171655|1-51699: 5,344-19,876 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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IMGVR_UViG_3300045988_129049|3300045988|Ga0495776_155622|1-55167: 5,344-23,375 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

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31radical SAM domain protein (CDS_0032)

IMGVR_UViG_646206263_000004|646206263|646206309|186623-241556: 5,546-23,819 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_148235|3300045988|Ga0495776_155567|19551-71130: 5,344-19,784 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300023494_000165|3300023494|Ga0257057_100175|16538-68977: 5,343-19,873 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_143163|3300045988|Ga0495776_160278|1-51555: 5,344-19,781 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)
nucleoside deoxyribosyltransferase (CDS_0023)

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26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300029731_000264|3300029731|Ga0245178_100243|18608-73607: 5,160-23,208 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

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IMGVR_UViG_3300045988_156984|3300045988|Ga0495776_150909|15349-66923: 5,160-19,783 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_139711|3300045988|Ga0495776_072282|16538-71508: 5,157-23,182 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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29radical SAM domain protein (CDS_0030)

MGV-GENOME-0324231: 5,546-20,960 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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27 radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_123788|3300045988|Ga0495776_014797|1-55334: 5,344-23,535 (+)

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ParA-like partition protein (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0027)

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30radical SAM domain protein (CDS_0031)

IMGVR_UViG_2519103197_000007|2519103197|2519124471|16956-69738: 5,344-20,055 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300008716_000112|3300008716|Ga0113874_100259|1-54785: 5,548-22,993 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

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IMGVR_UViG_3300045988_151653|3300045988|Ga0495776_173621|20932-72153: 5,548-19,430 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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IMGVR_UViG_3300045988_142204|3300045988|Ga0495776_163037|16641-67945: 5,548-19,429 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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IMGVR_UViG_3300045988_131985|3300045988|Ga0495776_166246|16539-68311: 5,344-19,983 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_148554|3300045988|Ga0495776_188941|15337-66385: 5,344-19,325 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)

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MGV-GENOME-0320002: 5,343-18,870 (+)

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MGV-GENOME-0315957: 5,343-18,617 (+)

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MGV-GENOME-0342477: 5,343-18,869 (+)

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IMGVR_UViG_3300045988_146210|3300045988|Ga0495776_163216|1-49831: 5,344-18,119 (+)

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IMGVR_UViG_3300045988_137925|3300045988|Ga0495776_173500|16581-69521: 5,344-21,143 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_145965|3300045988|Ga0495776_183390|16796-64845: 5,344-16,258 (+)

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nucleoside deoxyribosyltransferase (CDS_0016)
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MGV-GENOME-0322785: 5,344-22,058 (+)

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26 27282930radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_142423|3300045988|Ga0495776_149913|16618-67427: 5,362-19,101 (+)

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MGV-GENOME-0327140: 5,546-24,881 (+)

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radical SAM domain protein (CDS_0034)

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MGV-GENOME-0323307: 5,546-24,030 (+)

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radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300045988_140762|3300045988|Ga0495776_156815|13106-68402: 5,546-23,135 (+)

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ParA-like partition protein (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

uvig_513591: 5,549-28,252 (+)

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32 33 3435radical SAM domain protein (CDS_0036)

MGV-GENOME-0316457: 5,551-21,619 (+)

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MGV-GENOME-0314866: 5,551-21,060 (+)

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MTase_II_00074 Type (CDS_0027)

IMGVR_UViG_3300029708_000134|3300029708|Ga0245189_100370|1-56682: 5,546-24,887 (+)

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ParA-like partition protein (CDS_0023)

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MGV-GENOME-0316726: 5,551-20,949 (+)

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IMGVR_UViG_3300045988_136644|3300045988|Ga0495776_183440|17512-72727: 5,546-23,504 (+)

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ParA-like partition protein (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0027)

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MGV-GENOME-0319728: 5,546-22,345 (+)

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24 25 26 27 radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300007356_000193|3300007356|Ga0104763_100140|44020-95243: 5,546-19,432 (+)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_132339|3300045988|Ga0495776_166744|1-51866: 5,551-19,365 (+)

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IMGVR_UViG_3300045988_135348|3300045988|Ga0495776_178788|1-50842: 5,548-19,131 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_137938|3300045988|Ga0495776_173548|1-50720: 5,546-19,214 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_142646|3300045988|Ga0495776_151096|1-51677: 5,546-19,965 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

2526radical SAM domain protein (CDS_0027)

MGV-GENOME-0332442: 5,546-19,065 (+)

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radical SAM domain protein (CDS_0026)

MGV-GENOME-0323233: 5,546-20,388 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_128658|3300045988|Ga0495776_180249|1-51368: 5,546-19,576 (+)

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28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300028969_000131|3300028969|Ga0169711_100069|28217-82855: 5,546-22,847 (+)

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ParA-like partition protein (CDS_0027)

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31radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300045988_124138|3300045988|Ga0495776_155844|1-51371: 5,546-19,579 (+)

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28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_139396|3300045988|Ga0495776_151062|13104-64468: 5,546-19,573 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

MGV-GENOME-0358412: 5,546-20,188 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

MGV-GENOME-0321394: 5,546-19,504 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300029021_000207|3300029021|Ga0169710_100019|68950-120047: 5,546-19,818 (+)

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radical SAM domain protein (CDS_0027)
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MGV-GENOME-0322711: 5,546-20,080 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

27radical SAM domain protein (CDS_0028)

MGV-GENOME-0324505: 5,546-20,288 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

MGV-GENOME-0322917: 5,546-20,348 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

MGV-GENOME-0322474: 5,546-20,168 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

MGV-GENOME-0340761: 5,546-20,232 (+)

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radical SAM domain protein (CDS_0028)

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IMGVR_UViG_3300045988_137552|3300045988|Ga0495776_164561|16193-67544: 5,546-19,559 (+)

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IMGVR_UViG_3300045988_130915|3300045988|Ga0495776_149662|1-51370: 5,546-19,578 (+)

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MGV-GENOME-0328364: 5,546-20,167 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_139648|3300045988|Ga0495776_160510|18169-69909: 5,551-19,575 (+)

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IMGVR_UViG_3300045988_134993|3300045988|Ga0495776_163060|1-51365: 5,546-19,573 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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2829

IMGVR_UViG_3300045988_124987|3300045988|Ga0495776_186363|1-51367: 5,546-19,578 (+)

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radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_126727|3300045988|Ga0495776_014764|1-54850: 5,546-23,135 (+)

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ParA-like partition protein (CDS_0026)

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3132

IMGVR_UViG_3300045988_139335|3300045988|Ga0495776_163153|17133-68415: 5,546-19,568 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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2829

IMGVR_UViG_3300045988_134981|3300045988|Ga0495776_011212|1-56079: 5,546-23,914 (+)

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ParA-like partition protein (CDS_0026)

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nucleoside deoxyribosyltransferase (CDS_0029)

3031radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300045988_143659|3300045988|Ga0495776_180522|16191-71037: 5,546-23,055 (+)

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ParA-like partition protein (CDS_0025)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_134663|3300045988|Ga0495776_072232|1-54742: 5,546-23,115 (+)

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ParA-like partition protein (CDS_0026)

27 28

nucleoside deoxyribosyltransferase (CDS_0029)

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IMGVR_UViG_3300045988_130054|3300045988|Ga0495776_160484|1-54743: 5,546-23,116 (+)

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ParA-like partition protein (CDS_0026)

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IMGVR_UViG_3300045988_143294|3300045988|Ga0495776_129854|16620-71527: 5,546-23,116 (+)

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ParA-like partition protein (CDS_0027)

28 29 3031radical SAM domain protein (CDS_0032)

MGV-GENOME-0322933: 5,546-23,854 (+)

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nucleoside deoxyribosyltransferase (CDS_0030)
31radical SAM domain protein (CDS_0032)

MGV-GENOME-0322607: 5,546-23,699 (+)

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nucleoside deoxyribosyltransferase (CDS_0030)

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radical SAM domain protein (CDS_0032)
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IMGVR_UViG_3300045988_145388|3300045988|Ga0495776_160485|14439-69179: 5,546-23,114 (+)

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IMGVR_UViG_3300045988_130179|3300045988|Ga0495776_186386|1-54909: 5,546-23,111 (+)

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ParA-like partition protein (CDS_0026)

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31radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300029780_000312|3300029780|Ga0243204_1000152|24052-79200: 5,546-23,357 (+)

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ParA-like partition protein (CDS_0027)

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31radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300045988_141076|3300045988|Ga0495776_166665|18044-72777: 5,546-23,021 (+)

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ParA-like partition protein (CDS_0025)

26 27 2829radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_144891|3300045988|Ga0495776_160407|16829-71599: 5,546-23,060 (+)

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ParA-like partition protein (CDS_0026)

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nucleoside deoxyribosyltransferase (CDS_0030)

31radical SAM domain protein (CDS_0032)

MGV-GENOME-0321846: 5,546-24,087 (+)

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30 3132radical SAM domain protein (CDS_0033)

IMGVR_UViG_3300029853_000101|3300029853|Ga0245292_100364|1-53571: 5,546-21,855 (+)

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ParA-like partition protein (CDS_0026)

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30radical SAM domain protein (CDS_0031)

MGV-GENOME-0321689: 5,546-19,618 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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radical SAM domain protein (CDS_0028)

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IMGVR_UViG_3300023486_000235|3300023486|Ga0257044_10161|18788-69865: 5,546-19,286 (+)

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IMGVR_UViG_3300045988_135740|3300045988|Ga0495776_149323|16673-68065: 5,341-19,264 (+)

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IMGVR_UViG_3300045988_133171|3300045988|Ga0495776_163036|1-51355: 5,546-19,563 (+)

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IMGVR_UViG_3300045988_135882|3300045988|Ga0495776_171673|1-51351: 5,546-19,559 (+)

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IMGVR_UViG_3300029046_000251|3300029046|Ga0169641_100011|187340-238687: 5,546-19,556 (+)

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IMGVR_UViG_3300045988_145083|3300045988|Ga0495776_031790|24672-79561: 5,546-23,098 (+)

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ParA-like partition protein (CDS_0026)

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nucleoside deoxyribosyltransferase (CDS_0029)

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IMGVR_UViG_3300023485_000059|3300023485|Ga0257032_10123|1-54888: 5,546-23,096 (+)

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ParA-like partition protein (CDS_0026)

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3132

MGV-GENOME-0326948: 5,546-22,172 (+)

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anti-Thoeris (APIS045) (CDS_0026)

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anti-Thoeris (APIS045) (CDS_0028)

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nucleoside deoxyribosyltransferase (CDS_0032)

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radical SAM domain protein (CDS_0034)

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IMGVR_UViG_3300006525_000192|3300006525|Ga0101027_100165|1-56149: 5,546-23,160 (+)

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IMGVR_UViG_3300007210_000349|3300007210|Ga0103359_100001|210039-265892: 5,546-22,865 (+)

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IMGVR_UViG_3300029248_000272|3300029248|Ga0168696_1000153|8108-62608: 5,546-22,788 (+)

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ParA-like partition protein (CDS_0025)

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nucleoside deoxyribosyltransferase (CDS_0028)

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IMGVR_UViG_3300045988_153836|3300045988|Ga0495776_147468|24324-76903: 5,546-19,591 (+)

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IMGVR_UViG_3300045988_149175|3300045988|Ga0495776_080626|16668-73999: 7,968-25,539 (+)

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ParA-like partition protein (CDS_0025)

26 27 2829radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_156754|3300045988|Ga0495776_184209|27841-81627: 7,968-21,994 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_149373|3300045988|Ga0495776_072263|16365-71465: 5,546-22,483 (+)

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ParA-like partition protein (CDS_0021)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_138950|3300045988|Ga0495776_166784|1-51566: 5,546-19,508 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)
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IMGVR_UViG_3300029551_000210|3300029551|Ga0245011_100136|69988-121015: 5,546-19,236 (+)

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MGV-GENOME-0320226: 5,546-22,485 (+)

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radical SAM domain protein (CDS_0028)
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IMGVR_UViG_3300045988_124772|3300045988|Ga0495776_072266|1-54805: 5,546-23,049 (+)

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ParA-like partition protein (CDS_0024)

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IMGVR_UViG_3300029859_000260|3300029859|Ga0245304_100405|8688-63177: 5,546-22,776 (+)

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ParA-like partition protein (CDS_0025)

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IMGVR_UViG_3300045988_125478|3300045988|Ga0495776_072390|1-54938: 5,546-23,143 (+)

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IMGVR_UViG_3300045988_147232|3300045988|Ga0495776_160419|16444-67664: 5,546-19,508 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_143031|3300045988|Ga0495776_152752|16941-68156: 5,546-19,504 (+)

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MGV-GENOME-0321441: 5,546-19,410 (+)

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radical SAM domain protein (CDS_0025)

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IMGVR_UViG_3300045988_145322|3300045988|Ga0495776_180527|13038-64264: 5,546-19,514 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

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IMGVR_UViG_3300045988_142203|3300045988|Ga0495776_180257|1-51222: 5,546-19,510 (+)

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IMGVR_UViG_3300045988_126308|3300045988|Ga0495776_166884|1-54762: 5,546-23,050 (+)

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ParA-like partition protein (CDS_0024)

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IMGVR_UViG_3300045988_141367|3300045988|Ga0495776_166918|16940-68329: 5,550-19,595 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

24radical SAM domain protein (CDS_0025)

MGV-GENOME-0330669: 5,549-20,650 (+)

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23242526radical SAM domain protein (CDS_0027)

MGV-GENOME-0330608: 5,546-18,163 (+)

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IMGVR_UViG_3300045988_132017|3300045988|Ga0495776_169833|1-51218: 5,362-19,506 (+)

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IMGVR_UViG_3300045988_145844|3300045988|Ga0495776_072270|16650-71476: 5,546-23,039 (+)

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ParA-like partition protein (CDS_0025)

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nucleoside deoxyribosyltransferase (CDS_0028)

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IMGVR_UViG_3300028987_000094|3300028987|Ga0169644_100093|21160-72229: 5,546-19,358 (+)

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IMGVR_UViG_3300045988_153479|3300045988|Ga0495776_180326|21727-72913: 5,546-19,480 (+)

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IMGVR_UViG_3300045988_142425|3300045988|Ga0495776_171558|1-50009: 5,546-19,396 (+)

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26 27 HEase_00016 homing (CDS_0032)

IMGVR_UViG_3300045988_136398|3300045988|Ga0495776_150138|1-51287: 5,546-19,575 (+)

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IMGVR_UViG_3300045988_135102|3300045988|Ga0495776_160244|1-51390: 5,546-19,598 (+)

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IMGVR_UViG_3300045988_144557|3300045988|Ga0495776_186278|17165-68416: 5,546-19,460 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_131248|3300045988|Ga0495776_180211|18391-69475: 5,546-19,373 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_142909|3300045988|Ga0495776_186237|1-51551: 5,546-19,494 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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MGV-GENOME-0321929: 5,546-19,865 (+)

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2526radical SAM domain protein (CDS_0027)

MGV-GENOME-0324972: 5,546-21,255 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_137845|3300045988|Ga0495776_180535|1-54647: 5,546-23,025 (+)

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ParA-like partition protein (CDS_0026)

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nucleoside deoxyribosyltransferase (CDS_0029)

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MGV-GENOME-0321869: 5,546-23,408 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300028958_000057|3300028958|Ga0169756_100063|32851-86128: 5,546-22,665 (+)

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IMGVR_UViG_3300045988_125432|3300045988|Ga0495776_072236|1-54626: 5,546-22,913 (+)

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IMGVR_UViG_3300045988_141073|3300045988|Ga0495776_160498|17030-71854: 5,546-23,033 (+)

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MGV-GENOME-0320676: 5,546-22,790 (+)

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29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300029011_000039|3300029011|Ga0169594_100109|1-54933: 5,546-23,141 (+)

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IMGVR_UViG_3300029033_000082|3300029033|Ga0169717_100050|1-54948: 5,546-23,156 (+)

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ParA-like partition protein (CDS_0025)

26 27 2829radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300029099_000068|3300029099|Ga0169186_100273|1-53720: 5,546-22,008 (+)

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ParA-like partition protein (CDS_0025)

26 27

nucleoside deoxyribosyltransferase (CDS_0028)

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IMGVR_UViG_3300045988_184429|3300045988|Ga0495776_096537|3-54923: 5,546-23,129 (+)

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ParA-like partition protein (CDS_0025)

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30radical SAM domain protein (CDS_0031)

uvig_544034: 5,546-24,617 (+)

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anti-Thoeris (APIS045) (CDS_0029)
30 3132radical SAM domain protein (CDS_0033)

MGV-GENOME-0323493: 5,546-24,115 (+)

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29 3031radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300045988_139630|3300045988|Ga0495776_150082|1-51189: 5,546-19,397 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_143831|3300045988|Ga0495776_072590|1-50935: 5,546-19,143 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300029177_000066|3300029177|Ga0169205_100002|419223-473880: 5,546-22,866 (+)

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ParA-like partition protein (CDS_0026)

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radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300029065_000012|3300029065|Ga0169207_1001|2-53504: 5,546-21,711 (+)

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radical SAM domain protein (CDS_0030)

MGV-GENOME-0317519: 5,546-21,812 (+)

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oMTase_00015 orphan (CDS_0029)

MGV-GENOME-0317607: 5,546-21,844 (+)

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25 26 27 oMTase_00015 orphan (CDS_0028)

MGV-GENOME-0317542: 5,546-21,820 (+)

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26 27 28 oMTase_00015 orphan (CDS_0029)

MGV-GENOME-0319627: 5,546-22,212 (+)

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MGV-GENOME-0317730: 5,546-18,196 (+)

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oMTase_00015 orphan (CDS_0025)

IMGVR_UViG_3300014543_000136|3300014543|Ga0169722_100128|64192-118658: 5,546-22,754 (+)

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ParA-like partition protein (CDS_0025)

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29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_142764|3300045988|Ga0495776_166880|1-51198: 5,546-19,485 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_139709|3300045988|Ga0495776_156896|17208-72471: 5,551-21,473 (+)

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28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_133833|3300045988|Ga0495776_174758|1-51082: 5,343-19,288 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

24radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300045988_125943|3300045988|Ga0495776_004404|1-54863: 5,362-23,070 (+)

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ParA-like partition protein (CDS_0026)

27 28

nucleoside deoxyribosyltransferase (CDS_0029)

30radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_133645|3300045988|Ga0495776_160232|1-51284: 5,362-19,491 (+)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_148779|3300045988|Ga0495776_051201|17095-71201: 5,362-23,133 (+)

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ParA-like partition protein (CDS_0025)
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MGV-GENOME-0334138: 5,546-19,450 (+)

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MTase_II_00074 Type (CDS_0029)

MGV-GENOME-0332460: 8,215-19,067 (+)

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MTase_II_00074 Type (CDS_0028)

MGV-GENOME-0319289: 5,549-18,539 (+)

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MTase_II_00074 Type (CDS_0025)

MGV-GENOME-0319701: 5,547-18,356 (+)

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MTase_II_00074 Type (CDS_0025)

MGV-GENOME-0351642: 5,546-18,436 (+)

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MTase_II_00074 Type (CDS_0025)

MGV-GENOME-0323170: 5,546-20,451 (+)

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MTase_II_00074 Type (CDS_0030)

IMGVR_UViG_3300029256_000074|3300029256|Ga0168827_100276|17359-81409: 5,546-32,257 (+)

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ParA-like partition protein (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0035)
36radical SAM domain protein (CDS_0037)

IMGVR_UViG_3300045988_141142|3300045988|Ga0495776_149788|17022-73820: 5,546-25,005 (+)

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ParA-like partition protein (CDS_0024)

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30radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_147356|3300045988|Ga0495776_147551|16949-71193: 5,362-22,533 (+)

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ParA-like partition protein (CDS_0024)

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IMGVR_UViG_3300045988_135693|3300045988|Ga0495776_160375|16754-71145: 5,547-22,596 (+)

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ParA-like partition protein (CDS_0025)

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30radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_123327|3300045988|Ga0495776_140427|1-54399: 5,547-22,603 (+)

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25 26 27 2829radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_129408|3300045988|Ga0495776_072248|17539-71438: 5,546-22,577 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_145693|3300045988|Ga0495776_050855|16763-70346: 5,549-22,572 (+)

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MGV-GENOME-0325155: 5,547-24,896 (+)

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nucleoside deoxyribosyltransferase (CDS_0032)
33radical SAM domain protein (CDS_0034)

IMGVR_UViG_3300045988_140718|3300045988|Ga0495776_180513|1-50778: 5,546-19,066 (+)

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IMGVR_UViG_3300045988_140020|3300045988|Ga0495776_174708|14169-65022: 5,547-19,058 (+)

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IMGVR_UViG_3300045988_127903|3300045988|Ga0495776_171691|1-50856: 5,546-19,065 (+)

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23 radical SAM domain protein (CDS_0024)

IMGVR_UViG_3300045988_145834|3300045988|Ga0495776_171474|16694-67544: 5,546-19,059 (+)

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2122

nucleoside deoxyribosyltransferase (CDS_0023)

24radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300045988_149907|3300045988|Ga0495776_149597|16653-66729: 5,549-19,065 (+)

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IMGVR_UViG_3300045988_143420|3300045988|Ga0495776_181705|1-50839: 5,549-19,046 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

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IMGVR_UViG_3300045988_132124|3300045988|Ga0495776_163104|17880-68735: 5,549-19,063 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)
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IMGVR_UViG_3300045988_143653|3300045988|Ga0495776_032738|16754-70330: 5,550-22,567 (+)

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ParA-like partition protein (CDS_0022)

23 24

nucleoside deoxyribosyltransferase (CDS_0025)

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IMGVR_UViG_3300045988_137519|3300045988|Ga0495776_177155|17173-67948: 5,549-19,063 (+)

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MGV-GENOME-0322083: 5,548-19,927 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_139960|3300045988|Ga0495776_156052|16783-67464: 5,546-18,970 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_134622|3300045988|Ga0495776_156110|16893-68024: 5,546-19,481 (+)

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radical SAM domain protein (CDS_0025)

oMTase_00015 orphan (CDS_0026)

IMGVR_UViG_3300045988_143418|3300045988|Ga0495776_180506|1-50687: 5,546-18,975 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_140870|3300045988|Ga0495776_171737|16998-68279: 5,546-19,488 (+)

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IMGVR_UViG_3300045988_140871|3300045988|Ga0495776_163203|16835-67601: 5,546-18,972 (+)

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IMGVR_UViG_3300045988_141637|3300045988|Ga0495776_163069|17037-67717: 5,546-18,969 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

MGV-GENOME-0320129: 5,546-18,944 (+)

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24 radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300045988_142668|3300045988|Ga0495776_155430|1-50771: 5,546-18,976 (+)

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IMGVR_UViG_3300045988_158557|3300045988|Ga0495776_159451|1-50500: 5,546-18,978 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_144584|3300045988|Ga0495776_156076|16760-67524: 5,546-18,972 (+)

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IMGVR_UViG_3300045988_140418|3300045988|Ga0495776_188298|17019-67450: 5,546-18,720 (+)

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24radical SAM domain protein (CDS_0025)

IMGVR_UViG_2879378121_000005|2879378121|2879378204|146620-200660: 5,546-22,245 (+)

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ParA-like partition protein (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0027)

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IMGVR_UViG_3300045988_145489|3300045988|Ga0495776_163074|16770-70296: 5,546-22,515 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_156727|3300045988|Ga0495776_171511|1-51267: 5,546-19,475 (+)

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26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300029561_000242|3300029561|Ga0244853_100058|33502-84762: 5,546-19,469 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_143652|3300045988|Ga0495776_180233|16703-67454: 5,546-18,970 (+)

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IMGVR_UViG_3300045988_139064|3300045988|Ga0495776_163163|17222-67975: 5,546-18,972 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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IMGVR_UViG_3300045988_141473|3300045988|Ga0495776_051232|17514-71307: 5,362-22,145 (+)

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ParA-like partition protein (CDS_0023)

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nucleoside deoxyribosyltransferase (CDS_0026)

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IMGVR_UViG_3300045988_145759|3300045988|Ga0495776_151064|1-50272: 5,362-18,619 (+)

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IMGVR_UViG_3300045988_141890|3300045988|Ga0495776_188205|1-50696: 5,370-18,984 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

MGV-GENOME-0316323: 5,546-17,583 (+)

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MGV-GENOME-0325470: 5,546-17,455 (+)

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MGV-GENOME-0319420: 5,546-18,130 (+)

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oMTase_00015 orphan (CDS_0024)

MGV-GENOME-0316055: 5,546-17,865 (+)

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MGV-GENOME-0318745: 5,546-18,201 (+)

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MGV-GENOME-0314719: 5,546-21,274 (+)

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23 24 25 oMTase_00015 orphan (CDS_0026)

MGV-GENOME-0340297: 5,546-20,344 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300023499_000267|3300023499|Ga0257052_100182|19897-70972: 5,546-19,284 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)
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MGV-GENOME-0344667: 5,546-18,921 (+)

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uvig_97781: 5,546-31,248 (+)

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ParA-like partition protein (CDS_0026)

27 28 29 30 31 32 3334radical SAM domain protein (CDS_0035)

MGV-GENOME-0336349: 5,546-21,387 (+)

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23 24 252627radical SAM domain protein (CDS_0028)

MGV-GENOME-0323841: 5,546-24,269 (+)

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anti-Thoeris (APIS045) (CDS_0028)

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nucleoside deoxyribosyltransferase (CDS_0030)

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radical SAM domain protein (CDS_0032)

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MGV-GENOME-0324207: 5,546-24,435 (+)

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anti-Thoeris (APIS045) (CDS_0028)

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nucleoside deoxyribosyltransferase (CDS_0030)

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radical SAM domain protein (CDS_0032)

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IMGVR_UViG_3300029858_000326|3300029858|Ga0245300_100005|311541-365444: 5,546-22,105 (+)

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IMGVR_UViG_3300045988_137668|3300045988|Ga0495776_171605|18022-68627: 5,546-18,808 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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MGV-GENOME-0319396: 5,546-18,560 (+)

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radical SAM domain protein (CDS_0024)

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MGV-GENOME-0324778: 5,550-20,923 (+)

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cysH_IV-B_1 (CDS_0022)

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nucleoside deoxyribosyltransferase (CDS_0026)

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radical SAM domain protein (CDS_0028)

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MGV-GENOME-0316270: 5,546-21,176 (+)

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24 25 26 27 oMTase_00015 orphan (CDS_0028)

uvig_540071: 5,549-18,157 (+)

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radical SAM domain protein (CDS_0024)

MGV-GENOME-0322138: 5,546-19,938 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

27radical SAM domain protein (CDS_0028)

MGV-GENOME-0322449: 5,546-20,114 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

27radical SAM domain protein (CDS_0028)

MGV-GENOME-0340611: 5,551-20,361 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

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MGV-GENOME-0340109: 5,546-20,155 (+)

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28radical SAM domain protein (CDS_0029)

MGV-GENOME-0322534: 5,546-20,160 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

MGV-GENOME-0341334: 5,546-21,250 (+)

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anti-Thoeris (APIS045) (CDS_0026)

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nucleoside deoxyribosyltransferase (CDS_0030)

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MGV-GENOME-0323603: 5,546-20,553 (+)

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anti-Thoeris (APIS045) (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

MGV-GENOME-0341960: 5,546-20,636 (+)

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nucleoside deoxyribosyltransferase (CDS_0030)

31radical SAM domain protein (CDS_0032)

MGV-GENOME-0334688: 5,546-20,304 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

MGV-GENOME-0309800: 5,546-18,069 (+)

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anti-Thoeris (APIS045) (CDS_0021)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

MGV-GENOME-0348197: 5,551-20,397 (+)

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MGV-GENOME-0322738: 5,551-20,166 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)

26radical SAM domain protein (CDS_0027)

MGV-GENOME-0346197: 5,546-20,302 (+)

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24radical SAM domain protein (CDS_0025)

MGV-GENOME-0324602: 5,546-21,955 (+)

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3233radical SAM domain protein (CDS_0034)

IMGVR_UViG_3300045988_134956|3300045988|Ga0495776_151153|1-51008: 5,546-19,215 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_142651|3300045988|Ga0495776_051497|1-49967: 5,551-18,255 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)

23radical SAM domain protein (CDS_0024)

IMGVR_UViG_3300045988_143027|3300045988|Ga0495776_156060|16776-67465: 5,546-18,895 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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IMGVR_UViG_3300045988_138542|3300045988|Ga0495776_156091|1-50723: 5,546-18,925 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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IMGVR_UViG_3300045988_143166|3300045988|Ga0495776_156801|13101-67356: 5,546-22,461 (+)

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29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300045988_118268|3300045988|Ga0495776_051077|1-54259: 5,546-22,464 (+)

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28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300029000_000154|3300029000|Ga0169663_100076|3-54283: 5,546-22,486 (+)

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ParA-like partition protein (CDS_0024)

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29radical SAM domain protein (CDS_0030)

MGV-GENOME-0321412: 5,546-23,081 (+)

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nucleoside deoxyribosyltransferase (CDS_0030)

31radical SAM domain protein (CDS_0032)

MGV-GENOME-4426848: 5,546-23,204 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)
28radical SAM domain protein (CDS_0029)

MGV-GENOME-0321729: 5,546-19,692 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_125043|3300045988|Ga0495776_149236|1-54250: 5,546-22,455 (+)

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ParA-like partition protein (CDS_0024)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

MGV-GENOME-0332737: 5,546-20,212 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

28radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_118750|3300045988|Ga0495776_014955|1-54728: 5,362-22,933 (+)

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ParA-like partition protein (CDS_0024)

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IMGVR_UViG_3300045988_151530|3300045988|Ga0495776_001635|15560-70116: 5,362-23,584 (+)

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ParA-like partition protein (CDS_0023)

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IMGVR_UViG_3300045988_143414|3300045988|Ga0495776_072326|22574-71605: 5,546-17,240 (+)

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22radical SAM domain protein (CDS_0023)

IMGVR_UViG_3300045988_125069|3300045988|Ga0495776_156262|16428-64613: 5,546-16,391 (+)

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MGV-GENOME-0300832: 5,584-15,145 (+)

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MTase_II_00074 Type (CDS_0020)

IMGVR_UViG_3300045988_130535|3300045988|Ga0495776_158460|1-50627: 5,550-18,564 (+)

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nucleoside deoxyribosyltransferase (CDS_0021)

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MGV-GENOME-0317788: 5,550-17,710 (+)

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MTase_II_00074 Type (CDS_0021)

IMGVR_UViG_3300045988_138803|3300045988|Ga0495776_072473|16587-72180: 5,546-23,882 (+)

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ParA-like partition protein (CDS_0022)

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nucleoside deoxyribosyltransferase (CDS_0026)

2728radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_142155|3300045988|Ga0495776_149635|1-52061: 5,546-20,349 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)

2324radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300045988_137528|3300045988|Ga0495776_072522|1-55625: 5,546-23,914 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

2829radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300030444_000235|3300030444|Ga0168855_100175|11325-66369: 5,552-23,253 (+)

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IMGVR_UViG_3300029862_000124|3300029862|Ga0245308_100335|19463-75109: 5,546-23,934 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)
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radical SAM domain protein (CDS_0031)

IMGVR_UViG_3300045988_142054|3300045988|Ga0495776_173479|1-52058: 5,546-20,345 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)
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radical SAM domain protein (CDS_0027)

IMGVR_UViG_3300045988_142053|3300045988|Ga0495776_160454|1-51037: 5,555-19,709 (+)

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nucleoside deoxyribosyltransferase (CDS_0021)
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radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300045988_134647|3300045988|Ga0495776_166655|16610-67616: 5,555-19,678 (+)

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nucleoside deoxyribosyltransferase (CDS_0021)
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radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300029619_000268|3300029619|Ga0245131_1000148|4056-58828: 5,555-22,976 (+)

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ParA-like partition protein (CDS_0021)

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nucleoside deoxyribosyltransferase (CDS_0024)

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radical SAM domain protein (CDS_0028)

MGV-GENOME-0320952: 5,555-23,315 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)
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radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300035649_000122|3300035649|Ga0134437_00028|1-54806: 5,555-23,299 (+)

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nucleoside deoxyribosyltransferase (CDS_0025)
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IMGVR_UViG_3300045988_143800|3300045988|Ga0495776_155528|16554-68616: 5,546-20,271 (+)

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nucleoside deoxyribosyltransferase (CDS_0024)

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radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_131268|3300045988|Ga0495776_163003|16857-67864: 5,555-19,680 (+)

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nucleoside deoxyribosyltransferase (CDS_0021)
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radical SAM domain protein (CDS_0025)

IMGVR_UViG_3300045988_133373|3300045988|Ga0495776_180593|16600-67612: 5,555-19,684 (+)

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nucleoside deoxyribosyltransferase (CDS_0021)
nucleoside deoxyribosyltransferase (CDS_0022)
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radical SAM domain protein (CDS_0026)

MGV-GENOME-0322092: 5,546-23,433 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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radical SAM domain protein (CDS_0030)

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IMGVR_UViG_2914250027_000001|2914250027|2914250028|20118-71454: 5,546-19,542 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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MGV-GENOME-0322894: 5,546-23,913 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

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radical SAM domain protein (CDS_0032)

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MGV-GENOME-0334579: 5,546-20,367 (+)

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nucleoside deoxyribosyltransferase (CDS_0022)

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radical SAM domain protein (CDS_0026)

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IMGVR_UViG_3300045988_124780|3300045988|Ga0495776_155398|1-55262: 5,546-23,467 (+)

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nucleoside deoxyribosyltransferase (CDS_0029)

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radical SAM domain protein (CDS_0033)

IMGVR_UViG_3300045988_132332|3300045988|Ga0495776_155520|1-53571: 5,546-23,072 (+)

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radical SAM domain protein (CDS_0031)

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IMGVR_UViG_3300045988_124599|3300045988|Ga0495776_150893|1-54438: 5,549-23,148 (+)

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nucleoside deoxyribosyltransferase (CDS_0029)

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radical SAM domain protein (CDS_0031)
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IMGVR_UViG_3300045988_152559|3300045988|Ga0495776_188179|14358-68740: 5,549-23,093 (+)

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radical SAM domain protein (CDS_0030)
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IMGVR_UViG_3300045988_130916|3300045988|Ga0495776_051131|1-54175: 5,549-22,895 (+)

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radical SAM domain protein (CDS_0030)

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DNA methyltransferase (CDS_0032)

IMGVR_UViG_2913820460_000011|2913820460|2913820622|15456-70469: 5,548-23,731 (+)

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nucleoside deoxyribosyltransferase (CDS_0030)

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radical SAM domain protein (CDS_0032)

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DNA methyltransferase (CDS_0034)

IMGVR_UViG_3300045988_145210|3300045988|Ga0495776_051130|16860-70997: 5,549-22,853 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

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radical SAM domain protein (CDS_0030)
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IMGVR_UViG_3300045988_144143|3300045988|Ga0495776_166652|18507-72605: 5,549-22,813 (+)

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radical SAM domain protein (CDS_0030)
oMTase_00015 orphan (CDS_0031)

IMGVR_UViG_3300045988_141883|3300045988|Ga0495776_173509|17024-71192: 5,548-22,887 (+)

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30 31 oMTase_00015 orphan (CDS_0032)

IMGVR_UViG_3300029497_000140|3300029497|Ga0244216_100118|26316-80227: 5,549-22,633 (+)

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radical SAM domain protein (CDS_0030)

oMTase_00015 orphan (CDS_0031)

IMGVR_UViG_2893937180_000003|2893937180|2893937246|18326-73340: 5,548-23,732 (+)

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radical SAM domain protein (CDS_0032)

oMTase_00015 orphan (CDS_0033)

IMGVR_UViG_3300045988_143170|3300045988|Ga0495776_051095|16788-70915: 5,546-22,848 (+)

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26 27 2829 30 oMTase_00015 orphan (CDS_0031)

IMGVR_UViG_2510065017_000005|2510065017|2510066450|12376-66648: 5,299-22,931 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

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radical SAM domain protein (CDS_0030)

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oMTase_00015 orphan (CDS_0032)

IMGVR_UViG_3300029819_000241|3300029819|Ga0245024_100170|63212-117115: 5,548-22,621 (+)

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IMGVR_UViG_3300029127_000212|3300029127|Ga0168774_100220|28272-82174: 5,548-22,620 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

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radical SAM domain protein (CDS_0029)
oMTase_00015 orphan (CDS_0030)

IMGVR_UViG_3300045988_126891|3300045988|Ga0495776_072333|1-54546: 5,550-22,489 (+)

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25 26 2728radical SAM domain protein (CDS_0029)

IMGVR_UViG_3300045988_144315|3300045988|Ga0495776_163250|17039-70351: 5,549-22,033 (+)

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radical SAM domain protein (CDS_0026)

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DNA methyltransferase (CDS_0028)

MGV-GENOME-0322896: 5,549-24,342 (+)

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nucleoside deoxyribosyltransferase (CDS_0032)

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radical SAM domain protein (CDS_0034)

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DNA methyltransferase (CDS_0036)

IMGVR_UViG_3300029783_000253|3300029783|Ga0243236_1000050|121154-172107: 5,299-19,692 (+)

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radical SAM domain protein (CDS_0025)

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IMGVR_UViG_3300045988_135675|3300045988|Ga0495776_186366|1-55079: 5,546-23,286 (+)

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ParA-like partition protein (CDS_0023)

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IMGVR_UViG_3300045988_132452|3300045988|Ga0495776_050865|1-54789: 5,546-22,998 (+)

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22 23 24 25 2627radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_131733|3300045988|Ga0495776_072315|1-54800: 5,546-23,010 (+)

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ParA-like partition protein (CDS_0023)

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IMGVR_UViG_3300045988_143425|3300045988|Ga0495776_155565|16837-68061: 5,546-19,433 (+)

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nucleoside deoxyribosyltransferase (CDS_0023)

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MGV-GENOME-0321206: 5,546-19,414 (+)

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23 radical SAM domain protein (CDS_0024)

MGV-GENOME-0342963: 5,546-21,236 (+)

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MGV-GENOME-0315877: 5,546-21,011 (+)

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MGV-GENOME-0333940: 5,546-17,861 (+)

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MGV-GENOME-0334571: 5,546-20,557 (+)

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MGV-GENOME-0316913: 5,549-18,534 (+)

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MGV-GENOME-0306969: 5,546-17,578 (+)

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MGV-GENOME-0319325: 5,546-18,140 (+)

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IMGVR_UViG_3300045988_123029|3300045988|Ga0495776_072291|1-54909: 5,362-23,117 (+)

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ParA-like partition protein (CDS_0027)

28 29 3031radical SAM domain protein (CDS_0032)

IMGVR_UViG_3300045988_147852|3300045988|Ga0495776_158425|16189-67471: 5,362-19,572 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300029618_000305|3300029618|Ga0245134_100213|9962-61079: 5,362-19,322 (+)

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27radical SAM domain protein (CDS_0028)

IMGVR_UViG_3300045988_128159|3300045988|Ga0495776_180558|1-48957: 5,362-17,161 (+)

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23radical SAM domain protein (CDS_0024)

IMGVR_UViG_3300045988_129051|3300045988|Ga0495776_160261|1-51372: 5,362-20,092 (+)

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nucleoside deoxyribosyltransferase (CDS_0026)

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IMGVR_UViG_3300045988_143789|3300045988|Ga0495776_150221|1-50260: 5,362-18,468 (+)

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25radical SAM domain protein (CDS_0026)

IMGVR_UViG_3300045988_132795|3300045988|Ga0495776_180120|1-50710: 5,362-18,915 (+)

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IMGVR_UViG_3300045988_132683|3300045988|Ga0495776_159511|17200-71239: 5,362-22,245 (+)

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ParA-like partition protein (CDS_0022)

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nucleoside deoxyribosyltransferase (CDS_0026)

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MGV-GENOME-0327880: 5,367-17,115 (+)

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MGV-GENOME-0315480: 5,367-17,348 (+)

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MGV-GENOME-4426323: 5,367-21,736 (+)

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MTase_II_00074 Type (CDS_0029)

MGV-GENOME-0323792: 5,362-24,249 (+)

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nucleoside deoxyribosyltransferase (CDS_0031)

32radical SAM domain protein (CDS_0033)

MGV-GENOME-0323264: 5,362-20,220 (+)

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nucleoside deoxyribosyltransferase (CDS_0028)

29radical SAM domain protein (CDS_0030)

IMGVR_UViG_3300014787_000185|3300014787|Ga0134384_1000006|94105-149071: 5,362-23,252 (+)

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ParA-like partition protein (CDS_0025)

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nucleoside deoxyribosyltransferase (CDS_0028)

2930radical SAM domain protein (CDS_0031)

MGV-GENOME-0360394: 5,362-22,093 (+)

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nucleoside deoxyribosyltransferase (CDS_0027)

2829radical SAM domain protein (CDS_0030)

MGV-GENOME-0331520: 5,546-28,917 (+)

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nucleoside deoxyribosyltransferase (CDS_0040)

41radical SAM domain protein (CDS_0042)

MGV-GENOME-0359366: 5,546-23,617 (+)

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nucleoside deoxyribosyltransferase (CDS_0035)

36radical SAM domain protein (CDS_0037)

MGV-GENOME-4427247: 5,546-24,873 (+)

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anti-Thoeris (APIS045) (CDS_0028)

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radical SAM domain protein (CDS_0034)

oMTase_00015 orphan (CDS_0035)

MGV-GENOME-0324235: 5,546-24,969 (+)

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anti-Thoeris (APIS045) (CDS_0028)

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radical SAM domain protein (CDS_0034)

oMTase_00015 orphan (CDS_0035)

MGV-GENOME-0307695: 5,548-17,824 (+)

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anti-Thoeris (APIS045) (CDS_0018)

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radical SAM domain protein (CDS_0022)

oMTase_00015 orphan (CDS_0023)

IMGVR_UViG_3300029414_000065|3300029414|Ga0243798_100527: 5,546-32,333 (+)

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ATPase (CDS_0032)

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anti-Thoeris (APIS045) (CDS_0041)

42 4344radical SAM domain protein (CDS_0045)

MGV-GENOME-0320022: 5,362-18,883 (+)

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radical SAM domain protein (CDS_0023)

MGV-GENOME-0337971: 5,362-17,965 (+)

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MGV-GENOME-0323087: 5,362-23,101 (+)

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MGV-GENOME-0331299: 5,362-21,547 (+)

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22 23 24 2526radical SAM domain protein (CDS_0027)

MGV-GENOME-0316222: 5,546-21,911 (+)

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26 27 oMTase_00015 orphan (CDS_0028)

MGV-GENOME-0318240: 5,546-22,439 (+)

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Tad2 anti-Thoeris (APIS029) (CDS_0027)
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MGV-GENOME-0313787: 5,546-18,027 (+)

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uvig_61271: 5,546-40,155 (+)

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MTase_II_00080 Type (CDS_0041)
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radical SAM domain protein (CDS_0044)

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uvig_262877: 5,546-31,195 (+)

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MGV-GENOME-0328525: 5,548-26,154 (+)

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MTase_II_00074 Type (CDS_0036)

MGV-GENOME-0326927: 5,546-26,237 (+)

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radical SAM domain protein (CDS_0038)

MGV-GENOME-0320437: 5,551-22,681 (+)

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MTase_II_00074 Type (CDS_0037)

MGV-GENOME-0301270: 5,548-14,878 (+)

15 MTase_II_00074 Type (CDS_0016)

MGV-GENOME-0322840: 5,566-24,342 (+)

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MTase_II_00074 Type (CDS_0032)

MGV-GENOME-0319422: 5,552-22,644 (+)

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MTase_II_00074 Type (CDS_0028)

MGV-GENOME-0316856: 5,552-22,506 (+)

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MTase_II_00164 Type (CDS_0020)

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MTase_II_00074 Type (CDS_0034)

MGV-GENOME-0322344: 5,362-19,944 (+)

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MTase_II_00074 Type (CDS_0031)

MGV-GENOME-0335439: 5,362-21,311 (+)

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MTase_II_00074 Type (CDS_0032)

MGV-GENOME-0321575: 5,362-23,251 (+)

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MTase_II_00074 Type (CDS_0031)

MGV-GENOME-0321568: 5,362-23,249 (+)

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MTase_II_00074 Type (CDS_0031)

uvig_157120: 5,546-44,475 (+)

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ParA-like partition protein (CDS_0025)

26 27 28

PDC-S05_WP_231564492.1 (CDS_0029)
RM__Type_I_MTases_FAM_0 (CDS_0030)

PDC-S57_WP_173639931.1 (CDS_0031)

REase_I_00009 Type (CDS_0032)

PDC-M64C_WP_110053925.1 (CDS_0033)

34

PDC-S27_WP_184132443.1 (CDS_0035)

3637

PDC-S68_WP_170143107.1 (CDS_0038)
39 40 41 42

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phosphoadenosine phosphosulfate reductase (CDS_0045)

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DNA methyltransferase (CDS_0047)

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MTase_II_00074 Type (CDS_0052)

MGV-GENOME-0348944: 5,362-32,132 (+)

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protease (CDS_0047)

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IMGVR_UViG_3300045988_127125|3300045988|Ga0495776_166732|1-51384: 5,367-10,880 (+)

14

MGV-GENOME-0303920: 5,546-13,019 (+)

16 17

10000 nt

DNA, RNA and nucleotide metabolism moron, auxiliary metabolic gene and host takeover other unknown function defence (DefenseFinder) defence (PADLOC) anti-defence (dbAPIS) tRNA pseudogene