



ribose-phosphate pyrophosphokinase (CDS\_0056)  
nicotinamide phosphoribosyl transferase (CDS\_0053)

metallo-phosphoesterase (CDS\_0062)

RNA ligase (CDS\_0044)  
endolysin (CDS\_0040)

tRNA splicing ligase (CDS\_0055)  
NAD synthetase (CDS\_0051)  
phosphatase (CDS\_0052)

Retron\_RT\_Tot\_1 (CDS\_0063)  
ThiF family (CDS\_0065)

endolysin (CDS\_0040)  
NAD synthetase (CDS\_0047)  
phosphatase (CDS\_0048)

ribose-phosphate pyrophosphokinase (CDS\_0048)  
nicotinamide phosphoribosyl transferase (CDS\_0045)  
NAD synthetase (CDS\_0043)

endolysin (CDS\_0039)  
phosphatase (CDS\_0044)  
tRNA splicing ligase (CDS\_0047)

nicotinamide phosphoribosyl transferase (CDS\_0044)  
phosphatase (CDS\_0043)  
endolysin (CDS\_0039)

ribose-phosphate pyrophosphokinase (CDS\_0044)  
nicotinamide phosphoribosyl transferase (CDS\_0041)  
tRNA splicing ligase (CDS\_0043)

nicotinamide phosphoribosyl transferase (CDS\_0044)  
ATP-dependent DNA ligase (CDS\_0056)  
HNH endonuclease (CDS\_0049)

endolysin (CDS\_0039)  
RNA ligase (CDS\_0050)  
lipoprotein (CDS\_0053)

ribose-phosphate pyrophosphokinase (CDS\_0061)  
nicotinamide phosphoribosyl transferase (CDS\_0058)  
RNA ligase (CDS\_0049)

endolysin (CDS\_0040)  
RNA ligase (CDS\_0052)  
NAD synthetase (CDS\_0059)

endolysin (CDS\_0040)  
HNH endonuclease (CDS\_0051)  
amidase (CDS\_0041)

endolysin (CDS\_0040)  
RNA ligase (CDS\_0052)  
lipoprotein (CDS\_0055)

endolysin (CDS\_0039)  
excisionase (CDS\_0047)  
excisionase (CDS\_0046)

endolysin (CDS\_0040)  
excisionase (CDS\_0047)  
excisionase (CDS\_0046)

anti-CRISPR-Cas (AcrIIA21) (CDS\_0001)  
ParB-like partition protein (CDS\_0002)