tRNA-guanosine34 transglycosylase

Cat. No. EXWM-2656

Lot. No. (See product label)

Introduction

Description Certain prokaryotic and eukaryotic tRNAs contain the modified base queuine at position 34. In eukaryotes queuine is salvaged from food and incorporated into tRNA directly via a base-exchange reaction, replacing guanine. In eubacteria, which produce queuine de novo, the enzyme catalyses the exchange of guanine with the queuine precursor preQ1, which is ultimately modified to queuosine. The eubacterial enzyme can also use an earlier intermediate, preQ0, to replace guanine in unmodified tRNATyr and tRNAAsn. This enzyme acts after EC 1.7.1.13, preQ1 synthase, in the queuine-biosynthesis pathway.

Synonyms guanine insertion enzyme (ambiguous); tRNA transglycosylase (ambiguous); Q-insertase (ambiguous); queuine34 transfer ribonucleate ribosyltransferase; transfer ribonucleate glycosyltransferase (ambiguous); tRNA guanine34 transglycosidase; queuine tRNA-ribosyltransferase (ambiguous); TGT; [tRNA]-guanine34:queuine tRNA-D-ribosyltransferase; transfer ribonucleic acid guanine34 transglycosylase

Product Information

Form Liquid or lyophilized powder

EC Number EC 2.4.2.29

CAS No. 72162-89-1

Reaction (1) guanine34 in tRNA + queuine = queuine34 in tRNA + guanine; (2) guanine34 in tRNA + 7-aminomethyl-7-carbaguanine = 7-aminomethyl-7-carbaguanine34 in tRNA + guanine

Notes This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.