

## tRNAHis guanylyltransferase

Cat. No. EXWM-3291

Lot. No. (See product label)

### Introduction

**Description** In eukarya an additional guanosine residue is added post-transcriptionally to the 5'-end of tRNAHis molecules. The addition occurs opposite a universally conserved adenosine73 and is thus the result of a non-templated 3'-5' addition reaction. The additional guanosine residue is an important determinant for aminoacylation by EC 6.1.1.21, histidyl-tRNA ligase. The enzyme requires a divalent cation for activity. ATP activation is not required when the substrate contains a 5'-triphosphate (ppp-tRNAHis).

**Synonyms** histidine tRNA guanylyltransferase; Thg1p (ambiguous); Thg1 (ambiguous)

### Product Information

**Form** Liquid or lyophilized powder

**EC Number** EC 2.7.7.79

**Reaction** p-tRNAHis + ATP + GTP = pppGp-tRNAHis + AMP + diphosphate (overall reaction); (1a) p-tRNAHis + ATP = App-tRNAHis + diphosphate; (1b) App-tRNAHis + GTP = pppGp-tRNAHis + AMP

**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 °C for short term. For long term storage, store it at -20 °C~-80 °C.