Data Sheet (Cat.No.TMPH-01712)

TRMT112 Protein, Human, Recombinant (His & SUMO)

General Information

Synonyms:	Multifunctional methyltransferase subunit TRM112-like protein;tRNA methyltransferase 112 homolog;TRMT112
Protein Construction:	1-125 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q9UI30
Molecular Weight:	30.2 kDa (predicted)
AA Sequence:	MKLLTHNLLSSHVRGVGSRGFPLRLQATEVRICPVEFNPNFVARMIPKVEWSAFLEAADNLRLIQVPKGPVEG YEENEEFLRTMHHLLLEVEVIEGTLQCPESGRMFPISRGIPNMLLSEEETES

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Acts as an activator of both rRNA/tRNA and protein methyltransferases. Together with methyltransferase BUD23, methylates the N(7) position of a guanine in 18S rRNA. The heterodimer with HEMK2/N6AMT1 catalyzes N5-methylation of ETF1 on 'Gln-185', using S-adenosyl L-methionine as methyl donor. The heterodimer with HEMK2/N6AMT1 also monomethylates 'Lys-12' of histone H4 (H4K12me1). The heterodimer with ALKBH8 catalyzes the methylation of 5-carboxymethyl uridine to 5-methylcarboxymethyl uridine at the wobble position of the

anticodon loop in target tRNA species. Involved in the pre-rRNA processing steps leading to small-subunit rRNA production. Together with methyltransferase METTL5, specifically methylates the 6th position of adenine in position 1832 of 18S rRNA.

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