Data Sheet (Cat.No.TMPK-01308)

TargetMol

TAG-72 Protein, Canine, Recombinant (His)

General Information

Synonyms: mRNA-methyltransferase;mRNA (guanine-N(7))-methyltransferase;TAG72;TAG 72

Protein Construction: Met1-Gln478

Species: Canine

Expression Host: E. coli

Accession: A0A8C0SFE4

Molecular Weight: 56.19 kDa (predicted) same as Tris-Bis PAGE result.

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: > 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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

The guanine-N7 methyltransferase domain of vaccinia virus mRNA capping enzyme is a heterodimer composed of a catalytic subunit and a stimulatory subunit. Cap (guanine-N7) methylation is an essential step in eukaryal mRNA synthesis and a potential target for antiviral, antifungal, and antiprotozoal drug discovery.

Reference

Zheng S, Shuman S. Structure-function analysis of vaccinia virus mRNA cap (guanine-N7) methyltransferase. RNA. 2008 Apr;14(4):696-705. doi: 10.1261/rna.928208. Epub 2008 Feb 6. PMID: 18256245; PMCID: PMC2271365.

Zheng S, et al. Mutational analysis of Encephalitozoon cuniculi mRNA cap (guanine-N7) methyltransferase, structure of the enzyme bound to sinefungin, and evidence that cap methyltransferase is the target of sinefungin's antifungal activity. J Biol Chem. 2006 Nov 24;281(47):35904-13. doi: 10.1074/jbc.M607292200. Epub 2006 Sep 12. PMID: 16971388.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481