Data Sheet (Cat.No.TMPK-01164)

TargetMol

VSTM5 Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	VSTM5;C11orf90
Protein Construction:	Leu28-His146
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q9D806
Molecular Weight:	40.1 kDa (predicted). Due to glycosylation, the protein migrates to 55-65 kDa based on 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

V-set and transmembrane domain-containing protein 5 (Vstm5), a cell-adhesion-like molecule belonging to the Ig superfamily, was found in mouse brain. Knock-down of Vstm5 in cultured hippocampal neurons markedly reduced the complexity of dendritic structures, as well as the number of dendritic filopodia. Vstm5 also regulates neuronal morphology by promoting dendritic protrusions that later develop into dendritic spines.

Reference

Lee AR, et al. Putative Cell Adhesion Membrane Protein Vstm5 Regulates Neuronal Morphology and Migration in the Central Nervous System. J Neurosci. 2016 Sep 28;36(39):10181-97. doi: 10.1523/JNEUROSCI.0541-16.2016. Epub 2016 Sep 28. PMID: 27683913; PMCID: PMC6705580.

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