Data Sheet (Cat.No.TMPY-03410)

TargetMol

TMEM25 Protein, Human, Recombinant (His)

General Information

Synonyms:	bA83N9.1;transmembrane protein 25
Protein Construction:	A DNA sequence encoding the human TMEM25 (AAH51841.1) (Met1-Pro224) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 27
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAH51841.1
Molecular Weight:	22.8 kDa (predicted); 43 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. 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 SDS-PAGE
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, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

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:

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

TMEM25 is a novel member of the immunoglobulin superfamily. Immunoglobulin superfamily members are implicated in immune responses, growth factor signaling, and cell adhesion. TMEM25 contains 1 Ig-like (immunoglobulin-like) domain and is a target of pharmacogenomics in the field of oncology and regenerative medicine. TMEM25 isoform 1, consisting of exons 1-9, encoded a 366-aa transmembrane protein. TMEM25 isoform 2, consisting of exons 1-4 and 6-9, encoded a 322-aa secreted protein. TMEM25 mRNA was expressed in brain,

including cerebellar cortex and hippocampus, as well as in neuroblastoma, brain tumors, and gastric cancer. Human TMEM25 gene was located at the 11q23.3 oncogenomic recombination hotspot around the MLL amplicon and the neuroblastoma deleted region.

Reference

Grouse LH, et al. (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903.
Suzuki Y, et al. (1997) Construction and characterization of a full length-enriched and a 5'-end-enriched cDNA library. Gene. 200(1-2):149-56.
Sugano S, et al. (1994) Oligo-capping: a simple method to replace the cap structure of eukaryotic mRNAs with oligoribonucleotides. Gene. 138(1-2):171-4.
Katoh M, et al. (2004) Identification and characterization of human TMEM25 and mouse Tmem25 genes in silico. Oncol Rep. 12(2):429-33.

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