Data Sheet (Cat.No.TMPY-00926)

TargetMol

HAI-2/SPINT2 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	serine peptidase inhibitor, Kunitz type, 2;C76321;AL024025;HAI-2
Protein Construction:	A DNA sequence encoding the extracellular domain (Met 1-Lys 140) of mouse SPINT2 (NP_001076017.1) precursor was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Glu 31
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q9WU03-2
Molecular Weight:	14 kDa (predicted); 22 kDa (reducing condition, due to glycosylation)

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:	> 90 % 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

Choanal (CA) and gastrointestinal atresias (GA) are an important feature of syndromic congenital sodium diarrhea (sCSD), a disorder recently associated with mutations in the gene for serine protease inhibitor type 2 (SPINT2). The SPINT2 gene is epigenetically silenced or downregulated in human cancers, altering the balance of HGF activation/inhibition ratio, which contributes to cancer development and progression. SPINT2 is a tumor

suppressor gene that inhibits proteases implicated in cancer progression, like HGFA, hepsin and matriptase. Loss of SPINT2 expression in tumors has been associated with gene promoter hypermethylation. SPINT2 (serine peptidase inhibitor Kunitz type 2), a proteolytic inhibitor of hepatocyte growth factor activator (HGFA), has a significant role in the suppression of the HGF-MET pathway and malignant melanoma progression.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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