Data Sheet (Cat.No.TMPH-01771)

TargetMol

ASAH2 Protein, Human, Recombinant (His)

General Information

Synonyms:	N-acylsphingosine amidohydrolase 2;N-CDase;Neutral ceramidase;LCDase (hCD); Acylsphingosine deacylase 2;NCDase;HNAC1;Non-lysosomal ceramidase;BCDase;ASAH2
Protein Construction:	610-780 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q9NR71
Molecular Weight:	25.2 kDa (predicted)
AA Sequence:	FRNLAKAIATDTVANLSRGPEPPFFKQLIVPLIPSIVDRAPKGRTFGDVLQPAKPEYRVGEVAEVIFVGANPKNS VQNQTHQTFLTVEKYEATSTSWQIVCNDASWETRFYWHKGLLGLSNATVEWHIPDTAQPGIYRIRYFGHNRK QDILKPAVILSFEGTSPAFEVVTI

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:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized 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:

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

Plasma membrane ceramidase that hydrolyzes sphingolipid ceramides into sphingosine and free fatty acids at neutral pH. Ceramides, sphingosine, and its phosphorylated form sphingosine-1-phosphate are bioactive lipids

that mediate cellular signaling pathways regulating several biological processes including cell proliferation, apoptosis and differentiation. Also catalyzes the reverse reaction allowing the synthesis of ceramides from fatty acids and sphingosine. Together with sphingomyelinase, participates in the production of sphingosine and sphingosine-1-phosphate from the degradation of sphingomyelin, a sphingolipid enriched in the plasma membrane of cells. Also participates in the hydrolysis of ceramides from the extracellular milieu allowing the production of sphingosine-1-phosphate inside and outside cells. This is the case for instance with the digestion of dietary sphingolipids in the intestinal tract.

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