

Active Recombinant Human ASAH2 protein, His&hFc-tagged

Cat. No. ASAH2-251H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human ASAH2 protein(Q9NR71)(99-780 aa), fused with N-terminal His tag and C-terminal hFc tag, was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	99-780 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	The human ASAH2 gene encodes N-acylsphingosine amidohydrolase-2, also known as neutral or non-lysosomal ceramidase. ASAH2 is a type II integral membrane protein that can be cleaved to produce a soluble secreted protein. The enzyme is abundant in the brush border membranes of the intestine, but is also expressed in tissues such as kidney, brain and liver. An N-terminally truncated form of human ASAH2 has been shown to localize to mitochondria. A major physiological function of ASAH2 is the metabolism of dietary sphingolipids, but the enzyme may also be involved in the generation of messenger molecules such as sphingosine and sphingosine 1-phosphate. The activity of recombinant human ASAH2 is measured by its ability to hydrolyze the substrate C12:0 ceramide into sphingosine and dodecanoic acid in the assay buffer 25 mM MES, 150 mM NaCl, 1% (w/v) Sodium Cholate, pH 6.5. The rhASAH2 is diluted to 0.15 ug/ml in assay buffer and 50 ul diluted rhASAH2 was loaded into a black well plate and start the reaction by adding 200 μl of 250 μM

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substrate, with a substrate blank containing 50 μ assay buffer and 200 μ substrate and a protein blank containing 50 μ l diluted rhASA2 and 200 μ l assay buffer. Incubated at 37°C for 1h, then stop reactions by heating them at 95-100 °C for 5 minutes. Add 250 μ of 2 mg/ml o-PA mixture to all reaction vials, including controls and incubate at room temperature for 10 minutes. Load 200 μ (in duplicate) of reaction mixtures and controls in a plate and read at excitation and emission wavelengths of 330 nm and 450 nm (top read), respectively, in endpoint mode. The specific activity of recombinant human ASA2 is > 9700 pmol/min/g.

Molecular Mass	106.0kDa
Endotoxin	<1.0EU per 1 μ g (determined by the LAL method).
Purity	> 80%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	ASA2 N-acylsphingosine amidohydrolase (non-lysosomal ceramidase) 2 [Homo sapiens]
Official Symbol	ASA2
Synonyms	ASA2; N-acylsphingosine amidohydrolase (non-lysosomal ceramidase) 2; neutral ceramidase; mitochondrial ceramidase; non-lysosomal ceramidase; acylsphingosine deacylase 2; neutral/alkaline ceramidase; N-acylsphingosine amidohydrolase 2;

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HNAC1; BCDase; LCDase; NCDase; N-CDase;

Gene ID 56624

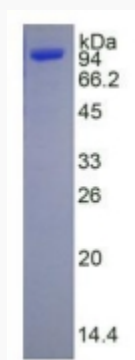
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Protein Refseq NP_001137446

MIM 611202

UniProt ID Q9NR71

SDS-PAGE



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