

## Product datasheet for TP311332L

### ASAH3 (ACER1) (NM\_133492) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human alkaline ceramidase 1 (ACER1), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC211332 protein sequence <span style="color: red;">Red</span> =Cloning site <span style="color: green;">Green</span> =Tags(s)  MPSIFAYQSSEVDWCESNFQYSELVAEFYNTFSNIPFFIFGPLMMLLMHPYAQKRSRYIYVWVLFMIIG LFSMYFHMTLSFLGQLLDEIAILWLLGSGYSIWMPRCYFPSFLGGNRSQFIRLVFITTVSTLLSFLRPT VNAYALNSIALHILYVCQEYRKTSNKELRHLIEVSVLWAVALTWISDRLLCSFWQRIHFFYLHSIWH VLISITFPYGMVTMALVDANYEMPGETLKVRYWPRDSWPVGLPYVEIRGDDKDC  <span style="color: red;">TR</span> <span style="color: green;">TRPLEQKLISEEDLAANDILDYKDDDDKV</span>
Tag:	C-Myc/DDK
Predicted MW:	30.9 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u><a href="#">NP_597999</a></u>
Locus ID:	125981
UniProt ID:	<u><a href="#">Q8TDN7</a></u>


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RefSeq Size: 1088

Cytogenetics: 19p13.3

RefSeq ORF: 792

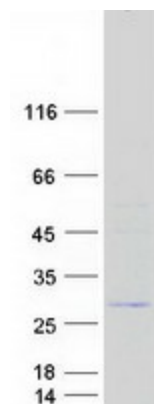
Synonyms: ALKCDase1; ASAH3

**Summary:** Ceramides are synthesized during epidermal differentiation and accumulate within the interstices of the stratum corneum, where they represent critical components of the epidermal permeability barrier. Excess cellular ceramide can trigger antimitogenic signals and induce apoptosis, and the ceramide metabolites sphingosine and sphingosine-1-phosphate (S1P) are important bioregulatory molecules. Ceramide hydrolysis in the nucleated cell layers regulates keratinocyte proliferation and apoptosis in response to external stress. Ceramide hydrolysis also occurs at the stratum corneum, releasing free sphingoid base that functions as an endogenous antimicrobial agent. ACER1 is highly expressed in epidermis and catalyzes the hydrolysis of very long chain ceramides to generate sphingosine (Houben et al., 2006 [PubMed 16477081]; Sun et al., 2008 [PubMed 17713573]).[supplied by OMIM, Jul 2010]

**Protein Families:** Transmembrane

**Protein Pathways:** Metabolic pathways, Sphingolipid metabolism

## Product images:



Coomassie blue staining of purified ACER1 protein (Cat# [TP311332]). The protein was produced from HEK293T cells transfected with ACER1 cDNA clone (Cat# [RC211332]) using MegaTran 2.0 (Cat# [TT210002]).