

## Product datasheet for **TP517552**

### Acer1 (NM\_175731) Mouse Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Purified recombinant protein of Mouse alkaline ceramidase 1 (Acer1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug

**Species:** Mouse

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >MR217552 representing NM\_175731  
**Red**=Cloning site **Green**=Tags(s)

MHVPGTRAKMSSIFAYQSSEVDWCESNFQHSELVAEFYNTFSNVFFLIFGPLMMFLMHPYAQKRTRCFYG  
VSVLFMLIGLFSMYFHMTLSFLGQLLDEISILWLLASGYSVWLPRCYFPKFKGNRFYFSCLVTTITTIIS  
TFLTFVKPTVNAYALNSIAIHILYIVRTEYKKIRDDDLRHLIAVSVLWAAALTSWISDRVLCSEFWQRIH  
FYYLHSIWHVLISITFPYGIVTMALVDAKYEMPDKTLKVHYWPRDSWVIGLPYVEIQENDKNC

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-MYC/DDK

**Predicted MW:** 32.5 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

**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 after receiving vials.

**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:** [NP\\_783858](#)

**Locus ID:** 171168

**UniProt ID:** [Q8R4X1](#)

**RefSeq Size:** 2429



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Cytogenetics: 17 D

RefSeq ORF: 819

Synonyms: 2310024P18Rik; AI662009; Alkcdase1; Asah3; Cer1

**Summary:** Endoplasmic reticulum ceramidase that catalyzes the hydrolysis of ceramides into sphingosine and free fatty acids at alkaline pH (PubMed:12783875). 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 (PubMed:12783875). Exhibits a strong substrate specificity towards the natural stereoisomer of ceramides with D-erythro-sphingosine as a backbone and has a higher activity towards very long-chain unsaturated fatty acids like the C24:1-ceramide (PubMed:12783875). May also hydrolyze dihydroceramides to produce dihydrosphingosine (By similarity). ACER1 is a skin-specific ceramidase that regulates the levels of ceramides, sphingosine and sphingosine-1-phosphate in the epidermis, mediates the calcium-induced differentiation of epidermal keratinocytes and more generally plays an important role in skin homeostasis (PubMed:27126290, PubMed:29056331).[UniProtKB/Swiss-Prot Function]