

Active Recombinant Human ADAM10 Protein, His tagged

Cat. No. ADAM10-13H Lot. No. (See product label)

SPECIFICATION

Product Overview

Human recombinant ADAM10, His-Tag derived from E. coli consists of the extracellular domain minus the signal peptide and pro-sequence, fused to N-terminal His-Tag, which results in a single, non-glycosylated protein with a molecular mass of 55 kDa and 459 amino acids (214-672). Members of the ADAM family are cell surface proteins with a unique structure possessing both potential adhesion and protease domains. ADAM10 and ADAM17 are the best characterized members of this family. ADAM10 cleaves many proteins including TNF-alpha and E-cadherin. It cleaves the membrane-bound precursor of tnf-alpha at 76-ala-[val-77 to its mature soluble form. For several other cell-surface proteins, including ephrin-a2, ADAM10 is in charge for the proteolytic release and for constitutive and regulated alpha-secretase cleavage of amyloid precursor protein. Furthermore, it is involved in the normal cleavage of the cellular prion protein. ADAM10 is involved in the cleavage of the adhesion molecule L1 (Neural cell adhesion molecule L1, NCAM-L1, 4710.952.xyz) at the cell surface and in the release of membrane vesicles, suggesting a vesicle-based protease activity. It controls the proteolytic processing of notch and mediates lateral inhibition during neurogenesis. ADAM10 is highly conserved, with 97% amino acid identity between mouse, rat, bovine and human.

Species

Human

Source

E.coli

Description

Members of the ADAM family are cell surface proteins with a unique structure possessing both potential adhesion and protease domains. This gene encodes and

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	ADAM family member that cleaves many proteins including TNF-alpha and E-cadherin. Alternate splicing results in multiple transcript variants encoding different proteins that may undergo similar processing.
Form	Liquid
Purity	≥ 95% by SDS-PAGE
Bio-activity	This product has been found to show the desired biological activity. For instance in an assay using the cleavage of the fluorogenic peptide substrate MCA-Lys-Pro-Leu-Gly-Leu-DPA-Ala-Arg-NH ₂ .
AA Sequence	TTSAEKNTCQLYIQTDHLFFKYYGTREAVIAQISSHVKAIDTIYQTTFSGIRNISFMVK RIRINTTADEKDPTNPFRFPNIGVEKFLELNSEQNHHDDYCLAYVFTDRDFDDGVLGLA WVGAPSGSSGGICEKSKLYSDGKKKSLNTGIITVQNYGSHVPPKVSHITFAHEVGHN FGSPHDSGTECTPGESKNLGQKENGNYIMYARATSGDKLNNNKFSLCSIRNISQVLE KKRNNCFVESGQPICGNMVEQGEECDGCGYSDQCKDECCFDANQPEGRKCKLKP GKQCSPSQGPCCTAQCAFKSKSEKCRDDSDCAREGICNGFTALCPASDPKPNFTD CNRHTQVCINGQCAGSICEKYGLEECTCASSDGKDDKELCHVCCMKKMDPSTCAS TGSVQWSRHFSGRTITLQPGSPCNDFRGYCDVFMRCRLVDADGPLARLKAIFSPE LYENIAE
Endotoxin	≤ 0.1 ng/μg (≤ 1EU/μg)
Stability	Stored at 4 centigrade if entire vial will be used within 2-4 weeks. For long term storage until the expiry date please store frozen at -20 centigrade. If possible, we recommend to add a carrier protein (0.1% HSA or BSA) and leave the working aliquots at the highest practical concentrations. Please avoid repeated freeze-thaw cycles.

Storage Buffer	Tris (20mM, pH 8), EDTA (1mM) and 50% Glycerol*
Concentration	Sterile filtered colorless solution with 0.14 mg/mL
Shipping	Shipped with ice packs

GENE INFORMATION

Gene Name	ADAM10 ADAM metallopeptidase domain 10 [Homo sapiens (human)]
Official Symbol	ADAM10
Synonyms	ADAM10; ADAM metallopeptidase domain 10; a disintegrin and metalloproteinase domain 10; disintegrin and metalloproteinase domain-containing protein 10; CD156c; HsT18717; kuz; MADM; CDw156; ADAM 10; kuzbanian protein homolog; mammalian disintegrin-metalloprotease; a disintegrin and metalloprotease domain 10; AD10
Gene ID	102
mRNA Refseq	NM_001110
Protein Refseq	NP_001101
MIM	602192
UniProt ID	O14672

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