

# 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

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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<sub>2</sub>.

**AA Sequence**

T TSAEKNTCQLYIQTDHLFFKYYGTREAVIAQISSHVKAIDTIYQTDFSGIRNISFMVK  
 RIRINTTADEKDPTNPF RFPNIGVEKFLELNSEQNHDDYCLAYVFTDRDFDDGVLGLA  
 WVGAPSGSSGGICEKSKLYSDGKKKSLNTGIITVQNYGSHVPPKVSHITFAHEVGHN  
 FGSPHDSGTECTPGESKNLGQKENGNYIMYARATSGDKLNNNKFSLCSIRNISQVLE  
 KKRNNCFVESGQPICNGMVEQGEECDGYSQCKDECCFDANQPEGRKCKLKP  
 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.

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

## GENE INFORMATION

<b>Gene Name</b>	ADAM10 ADAM metallopeptidase domain 10 [ Homo sapiens (human) ]
<b>Official Symbol</b>	ADAM10
<b>Synonyms</b>	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
<b>Gene ID</b>	102
<b>mRNA Refseq</b>	NM_001110
<b>Protein Refseq</b>	NP_001101
<b>MIM</b>	602192
<b>UniProt ID</b>	O14672

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