

## Active Recombinant Human APP/Protease Nexin II, CF

**Cat. No.** APP-54H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	A DNA sequence encoding the human CD33 signal peptide and the ectodomain of the recombinant human A Disintegrin and Metalloprotease domain 10 (rhADAM10, amino residues 18 - 672) (Rosendahl, et al., 1997, J. Biol. Chem. 272:24588 - 24593) was expressed with a C-terminal 10X His tag in an insect cell line, Sf21.
<b>Species</b>	Human
<b>Source</b>	Sf21 Cells
<b>ProteinLength</b>	18-672 a.a.
<b>Description</b>	ADAM10 (also known as Kuzbanian, mammalian disintegrin metalloprotease, myelin-associated metalloproteinase) is a member of the ADAM family that contains a disintegrin and metalloprotease-like domain. Like other membrane-anchored ADAMs, ADAM10 consists of the following domains, pro with a cysteine switch and furin cleavage sequence, catalytic with the zinc-binding site and Met-turn expected for reprolysins, disintegrin-like, cystein-rich, EGF-like, transmembrane, and cytoplasmic. ADAM10 is highly conserved, with 97% amino acid identity between mouse, rat, cattle and human and 45% identity between mouse and the active enzyme processes notch, notch ligand delta, and amyloid protein precursor at the alpha site, playing an important role in neurogenesis.
<b>Bio-activity</b>	Measured by its ability to cleave a fluorescent peptide substrate, (7-methoxycoumarin-4-yl) acetyl-Pro-Leu-Ala-Gln-Ala-Val-(3-[2, 4-dinitrophenyl]-L-2, 3-diaminopropionyl

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I)-Arg-Ser-Ser-Ser-Arg -NH<sub>2</sub> . Cleavage of ES003 can be measured using excitation and emission wavelengths of 320 nm and 405 nm, respectively.

**Molecular Mass**

The purified secreted rmADAM10 exists as the mature and active form with the N-terminal sequence of T214TSAEKNTCQ. The 469 amino acid residue rhADAM10 has a predicted molecular mass of approximately 52 kDa. By SDS-PAGE, the apparent molecular mass is appr

**Endotoxin**

< 2.0 eu per 1 µg of the enzyme as determined by the lal

**Purity**

>90%, as determined by SDS-PAGE and visualized by silver stain

**Storage**

Lyophilized samples are stable for up to six months at -20° C to -70° C. Upon reconstitution, this cytokine, in the presence of a carrier protein, can be stored under sterile conditions at 2 - 8° C for one month or at -20° C to -70° C in a manual defrost freezer for three months without detectable loss of activity.

## GENE INFORMATION

**Gene Name**

[APP amyloid beta \(A4\) precursor protein \[ Homo sapiens \]](#)

**Official Symbol**

APP

**Synonyms**

APP; amyloid beta (A4) precursor protein; AD1, Alzheimer disease; amyloid beta A4 protein; peptidase nexin II; preA4; protease nexin-II; peptidase nexin-II; beta-amyloid peptide; alzheimer disease amyloid protein; cerebral vascular amyloid peptide; AAA; AD1; PN2; ABPP; APPI; CVAP; ABETA; PN-II; CTFgamma;

**Gene ID**

[351](#)

**mRNA Refseq**

[NM\\_000484](#)

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<b>Protein Refseq</b>	NP_000475
<b>MIM</b>	104760
<b>UniProt ID</b>	P05067
<b>Chromosome Location</b>	21q21.2
<b>Pathway</b>	Activated TLR4 signalling, organism-specific biosystem; Advanced glycosylation endproduct receptor signaling, organism-specific biosystem; Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Amyloids, organism-specific biosystem; Caspase cascade in apoptosis, organism-specific biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem;
<b>Function</b>	DNA binding; PTB domain binding; acetylcholine receptor binding; heparin binding; identical protein binding; peptidase activator activity; peptidase inhibitor activity; protein binding; receptor binding; serine-type endopeptidase inhibitor activity; transition metal ion binding;

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