

Recombinant Human Caspase 2, Apoptosis-related Cysteine Peptidase

Cat. No. CASP2-747H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human caspase-2 was expressed in <i>E. coli</i> as a single polypeptide chain. MW = 12000 and 19000.
Species	Human
Source	E.coli
Description	Caspase 2 proteolytically cleaves other proteins. It belongs to a family of cysteine proteases called caspases that only cleave proteins at an amino acid following a aspartic acid residue. Within this family, caspase 2 is part of the Ich-1 subfamily. It is one of the most conserved caspases in different species of animal. Caspase 2 has a similar amino acid sequence to initiator caspases, including caspase 1, caspase 4, caspase 5 and caspase 9. It is produced as a zymogen, which contains a long pro-domain that is similar to that of caspase 9 and contains a protein interaction domain known as a CARD domain. Pro-caspase-2 contains two subunits, p19 and p12.
Purity	≥90% by SDS-PAGE.
Form	Lyophilized solid.
Recommended Reaction Conditions	50 mM HEPES, pH 7.2, 50 mM NaCl, 0.1% CHAPS (Cat. No. 220201), 10 mM EDTA, 5% glycerol, 10 mM DTT, and 200 μ M peptide substrate. For analyzing caspase-2 activity, use 1 unit of enzyme per assay.

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Specific Activity	≥1500 units/mg protein.
Unit Definition	One unit is defined as the amount of enzyme that will cleave 1.0 nmol of Ac-VDVAD-pNA per h at 37°C, pH 7.2.
Solubility	PBS (0.1-1 unit/μl).
Toxicity	Standard Handling (MSDS available upon request).
Storage	≤ -70°C. Following reconstitution, aliquot and freeze (-70°C). Stock solutions are stable for up to 6 months at -70°C.
GENE INFORMATION	
Gene Name	CASP2 caspase 2, apoptosis-related cysteine peptidase [Homo sapiens]
Synonyms	CASP2; caspase 2, apoptosis-related cysteine peptidase; ICH1; NEDD2; CASP-2; ICH-1L; ICH-1L/1S; caspase-2; NEDD-2; ICH-1 protease; protease ICH-1; NEDD2 apoptosis regulatory; neural precursor cell expressed, developmentally down-regulated 2; neural precursor cell expressed developmentally down-regulated protein 2; EC 3.4.22.55; Caspase-2 subunit p18; Caspase-2 subunit p13; Caspase-2 subunit p12
Gene ID	835
mRNA Refseq	NM_032982
Protein Refseq	NP_116764
MIM	600639

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UniProt ID	P42575
Chromosome Location	7q34-q35
Pathway	Signalling by NGF
Function	cysteine-type endopeptidase activity; enzyme binding; identical protein binding; peptidase activity; protein binding; protein domain specific binding
PDB rendering based on 1pyo.	