Active Recombinant Human CASP2 protein, His-tagged

Cat. No. CASP2-819H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CASP2 protein(P42575)(170~452 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	170-452 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Caspase-2 (CASP2) is a 30 32 kDa member of the peptidase C14A/IL 1 beta-converting family of enzymes. It is widely expressed and is an integral component of the apoptotic cascade. Based on the length of its prodomain, caspase-2 has been considered to be an initiator caspase. Human procaspase-2 is a 48 51 kDa, 452 amino acid (aa) protein. It is known to exist as a disulfide-linked homodimer via covalent linkage at Cys436. But this dimeric state may not be sufficient for (auto) activation. Actual activation may occur following oligomerization within the context of activating platforms such as DISC (death-inducing signaling complex) or the PIDDosome. The activity assay of recombinant human CASP2 was measured by its ability to cleave the fluorogenic peptide substrate Ac-VDVAD-AFC. The reaction was performed in 25 mM HEPES, 0.1% (w/v) CHAPS, 10 mM dithiothreitol (DTT), pH 7.5 (Assay Buffer). The CASP2 was diluted to 3 ug/ml by assay buffer and incubated at

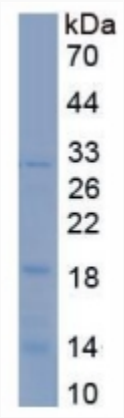
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	room temperature for 15min. The reaction was initiated by adding 50 ul 3 ug/ml CASP2 to 50 ul of 200 uM substrate and then read at excitation and emission wavelengths of 400 nm and 505 nm (top read), respectively, in kinetic mode for 5 minutes. The specific activity of recombinant human CASP2 is 2100 pmol/min/μg.
Molecular Mass	35.4kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 90% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in ddH2O to a concentration of 0.1-0.3 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	CASP2 caspase 2, apoptosis-related cysteine peptidase [Homo sapiens]
Official Symbol	CASP2
Synonyms	CASP2; caspase 2, apoptosis-related cysteine peptidase; NEDD2, neural precursor cell expressed, developmentally down regulated 2; caspase-2; ICH1; PPP1R57; protein phosphatase 1; regulatory subunit 57; protease ICH-1; protein phosphatase 1, regulatory subunit 57; neural precursor cell expressed developmentally down-regulated protein 2; NEDD2; CASP-2; NEDD-2;
Gene ID	835
mRNA Refseq	NM_001224

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Protein Refseq	NP_001215
MIM	600639
UniProt ID	P42575
SDS-PAGE	

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