Recombinant CASP2 protein (His tag)

Catalog Number	546977
Synonyms	CASP-2; Neural precursor cell expressed developmentally down-regulated protein 2; NEDD-2; Protease ICH-1
Species	Human
Expression System	E. coli
Accession	P42575
Molecular Weight	Predictes a molecular mass of 14.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	334-452
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 334-452 aa (P42575) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Caspase-2 (CASP-2) Fragment (residues 334-452) is a high-purity, stable protein fragment derived from human CASP-2, a key regulator of apoptosis. This 119-amino acid fragment is optimized for structural and biochemical studies, offering researchers a soluble and functional unit to investigate caspase-mediated cell death pathways. Caspase-2 (CASP-2) is a crucial executioner caspase that regulates the apoptotic cascade in humans. It functions by either activating proteins required for cell death or inactivating proteins necessary for cell survival. CASP-2 associates with PIDD1 and CRADD to form the PIDDosome complex, which activates CASP2 and triggers apoptosis in response to genotoxic stress. Isoform-specific roles include pro-apoptotic (Isoform 1) and anti-apoptotic (Isoform 2 and 3) activities, highlighting its complex regulatory functions in cell fate decisions. The provided fragment (residues 334-452) encompasses key structural domains, enabling focused studies on CASP-2's mechanistic roles without interference from full-length regulatory complexities.