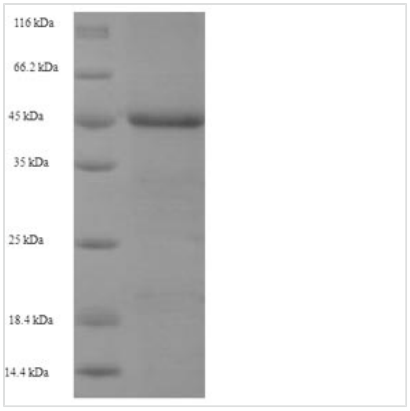
Recombinant Human Baculoviral IAP repeat-containing protein 1 (NAIP), partial

Product Code	CSB-EP615662HU
Relevance	Anti-apoptotic protein which acts by inhibiting the activities of CASP3, CASP7 and CASP9. Can inhibit the autocleavage of pro-CASP9 and cleavage of pro-CASP3 by CASP9. Capable of inhibiting CASP9 autoproteolysis at 'Asp-315' and decreasing the rate of auto proteolysis at 'Asp-330'. Acts as a mediator of neuronal survival in pathological conditions. Prevents motor-neuron apoptosis induced by a variety of signals. Possible role in the prevention of spinal muscular atrophy that ses to be caused by inappropriate persistence of motor-neuron apoptosis: mutated or deleted forms of NAIP have been found in individuals with severe spinal muscular atrophy.Acts as a sensor component of the NLRC4 inflammasome that specifically recognizes and binds needle protein CprI from pathogenic bacteria C.violaceum. Association of pathogenic bacteria proteins drives in turn drive assbly and activation of the NLRC4 inflammasome, promoting caspase-1 activation, cytokine production and macrophage pyroptosis. The NLRC4 inflammasome is activated as part of the innate immune response to a range of intracellular bacteria such as C.violaceum and L.pneumophila.
Abbreviation	Recombinant Human NAIP protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q13075
Alias	Neuronal apoptosis inhibitory protein
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	EAKRLKTFVTYEPYSSWIPQEMAAAGFYFTGVKSGIQCFCCSLILFGAGLTRLPIEDHKRFHPDCGFLLNKDVGNIAKYDIRVKNLKSRLRGGKMRYQEEEARLASFRNWPFYVQGISPCVLSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAKWFPKCEFLRSKKSSEEITQYIQSYKGFVDITGEHFVNSWVQRELPMASAYCNDSIFAYEELRLDSFKDWPRESAVGVAALAKAGLFYTGIKDIVQCFSCGGCLEKWQEGDDPLDDHTRCFPNCPFL
Research Area	Cancer
Source	E.coli
Target Names	NAIP
Expression Region	60-345aa

Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	48.6kDa
Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The expression region of this recombinant Human NAIP covers amino acids 60-345. This NAIP protein is theoretically predicted to have a molecular weight of 48.6 kDa. Expression of this NAIP protein is conducted in e.coli. Fusion of the N-terminal 6xHis-SUMO tag into the NAIP encoding gene fragment was conducted, allowing for easier detection and purification of the NAIP protein in subsequent stages.

Human baculoviral IAP repeat-containing protein 1 (NAIP) is crucial for innate immunity, acting as a sensor for intracellular pathogens. NAIP, part of the NLRC4 inflammasome, recognizes bacterial flagellin and type III secretion systems, triggering inflammatory responses and antimicrobial defenses. In infectious disease research, studying NAIP provides insights into host-pathogen interactions. Its association with autoinflammatory diseases links NAIP to autoimmune research. Moreover, understanding NAIP contributes to the broader field of inflammasome biology, offering potential therapeutic targets for immune-related disorders. Investigating NAIP's diverse functions provides a comprehensive understanding of its roles in immunity and various pathophysiological conditions.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.