

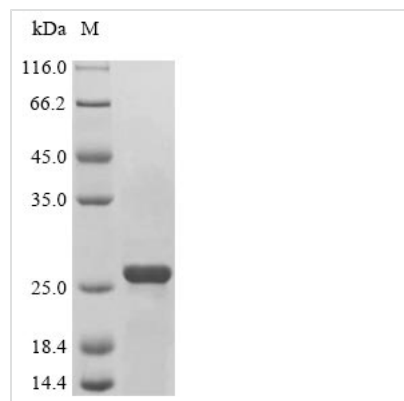


Recombinant Mouse BCL2/adenovirus E1B 19 kDa protein-interacting protein 3 (Bnip3), partial

Product Code	CSB-EP002766MO1
Relevance	Apoptosis-inducing protein that can overcome BCL2 suppression. May play a role in repartitioning calcium between the two major intracellular calcium stores in association with BCL2. Involved in mitochondrial quality control via its interaction with SPATA18/MIEAP: in response to mitochondrial damage, participates in mitochondrial protein catabolic process (also named MALM) leading to the degradation of damaged proteins inside mitochondria. The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane may play a critical role in the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix. The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane regulates the opening of a pore in the mitochondrial double membrane in order to mediate the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix (By similarity). Plays an important role in the calprotectin (S100A8/A9)-induced cell death pathway
Abbreviation	Recombinant Mouse Bnip3 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.	O55003
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MSQSGEENLQGSWVELHFSNGNGSSVPASVSIYNGDMEKILLDAQHESGRSS SKSSHCDSPPRSQTPQDTNRAEIDSHSFGEKNSTLSEEDYIERRREVESILKKN SDWIWDWSSRPENIPPKEFLFKHPKRTATLSMRNTSVMKKGKGGIFSADFLK
Research Area	others
Source	E.coli
Target Names	Bnip3
Protein Names	Nip3
Expression Region	1-156aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	21.6 kDa


Protein Length

Partial

Image


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

Description

The region for expressing recombinant Mouse Bnip3 contains amino acids 1-156. The calculated molecular weight for this Bnip3 protein is 21.6 kDa. The Bnip3 protein was expressed in e.coli. The N-terminal 6xHis tag was fused into the coding gene segment of Bnip3, making it easier to detect and purify the Bnip3 recombinant protein in the later stages of expression and purification.

Bnip3 (BCL2/adenovirus E1B 19 kDa protein-interacting protein 3) is one of the proteins currently under intense scrutiny in biomedical research. One of its primary areas of investigation is in the realms of apoptosis and mitochondrial function regulation. In this field, Bnip3 has been found to be closely associated with the regulation of the cell's self-destruction process and the stability of mitochondria. Particularly, under conditions of cellular stress and hypoxia, the expression levels of Bnip3 significantly increase, thereby influencing cell survival and death. Research on Bnip3 also extends to cardiovascular diseases, especially the physiological and pathological processes of cardiac muscle cells. Its role in conditions like ischemia-reperfusion injury and myocardial infarction is of particular interest. Scientists, by studying the relationship between Bnip3 expression and cardiovascular diseases, aim to discover new therapeutic methods and interventions.

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

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