

BNIP3L Protein, Human, Recombinant

General Information

Synonyms:	BCL2/adenovirus E1B 19kDa interacting protein 3-like;NIX;BNIP3a
Protein Construction:	A DNA sequence encoding the human BNIP3L (NP_004322.1) (Ser 2-Lys 187) was expressed and purified, with additional two amino acids (Gly & Pro) at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	O60238-1
Molecular Weight:	20.4 kDa (predicted); 36 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 88 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing 50 mM Tris, 150 mM NaCl, 1 mM DTT, pH 8.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The deletion of BNIP3L results in retention of mitochondria during lens fiber cell remodeling, and that deletion of BNIP3L also results in the retention of endoplasmic reticulum and Golgi apparatus. BNIP3L localizes to the endoplasmic reticulum and Golgi apparatus of wild-type newborn mouse lenses and is contained within mitochondria, endoplasmic reticulum and Golgi apparatus isolated from adult mouse liver. As the cells become

packed with keratin bundles, Bnip3L expression triggers mitophagy to rid the cells of the last remaining 'living' characteristic, thus completing the march from 'living' to 'dead' within the hair follicle. during retinal development tissue hypoxia triggers HIF1A/HIF-1 stabilization, resulting in increased expression of the mitophagy receptor BNIP3L/NIX. BNIP3L-dependent mitophagy results in a metabolic shift toward glycolysis essential for RGC neurogenesis. BNIP3L could be a potential therapeutic target for ischemic stroke

Reference

Imazu T, et al. (1999) Bcl-2 / E1B 19 kDa-interacting protein 3-like protein (Bnip3L) interacts with bcl-2 / Bcl-xL and induces apoptosis by altering mitochondrial membrane permeability. *Oncogene*. 18(32): 4523-9.
Sun JL, et al. (2004) Expression and structure of BNIP3L in lung cancer. *Ai Zheng*. 23(1): 8-14.

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