

DESCRIPTION

| | |
|---|--|
| Species Reactivity | Human |
| Specificity | Detects human BNIP3 in direct ELISAs. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 670639 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human BNIP3 Gly2-Ser160 Accession # Q12983 |
| Conjugate | Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm |
| Formulation | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. | |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

| | |
|----------------------------|--|
| Western Blot | Optimal dilution of this antibody should be experimentally determined. |
| Immunocytochemistry | Optimal dilution of this antibody should be experimentally determined. |

PREPARATION AND STORAGE

| | |
|--------------------------------|---|
| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied |

BACKGROUND

Bcl-2/adenovirus E1B 19 kDa protein-interacting protein 3 (BNIP3), also known as 19 kDa interacting protein 3 (NIP3), is a proapoptotic member of Bcl-2 protein family. BNIP3 is a 194 amino acid, 21.5 kDa (predicted) protein that contains a single Bcl-2 homology 3 (BH3) domain and a C-terminal transmembrane domain required for mitochondrial localization, homodimerization, and regulation of its proapoptotic function. BNIP3 was identified as one of several proteins that interact with discrete domains of Bcl-2 and the E1B 19 kDa protein. Under conditions of prolonged oxygen deprivation, the hypoxia-induced protein HIF1-α activates expression of BNIP3, which in turn, promotes apoptosis under these conditions. The mechanism of BNIP3-mediated apoptosis is independent of caspase activation and cytochrome c release and is characterized by early plasma membrane and mitochondrial damage, prior to the appearance of chromatin condensation or DNA fragmentation. Human BNIP3 shares 90% amino acid identity with mouse and rat BNIP3. Human BNIP3 shares 56% amino acid sequence identity with human BNIP3L.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.