Human BNIP3 Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 670621

Catalog Number: FAB4147T

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BNIP3 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human BNIP3L is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 670621
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human BNIP3 Ser2-Glu160 Accession # Q12983
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.

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-alpha 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

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