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Mouse Monoclonal Antibody to BNIP3

Purified Mouse Monoclonal Antibody
Catalog # AO2406a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	Q12983
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6A5F7
Isotype	Mouse IgG2a
Calculated MW	21541
Description	This gene is encodes a mitochondrial protein that contains a BH3 domain and acts as a pro-apoptotic factor. The encoded protein interacts with anti-apoptotic proteins, including the E1B 19 kDa protein and Bcl2. This gene is silenced in tumors by DNA methylation.;
Immunogen	Purified recombinant fragment of human BNIP3 (AA: 50-155) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide
Application Note	ELISA: 1/10000; WB: 1/500 - 1/2000; IHC: 1/200 - 1/1000; ICC: 1/50 - 1/250; FCM: 1/200 - 1/400

Additional Information

Gene ID	664
Other Names	NIP3
Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Monoclonal Antibody to BNIP3 is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

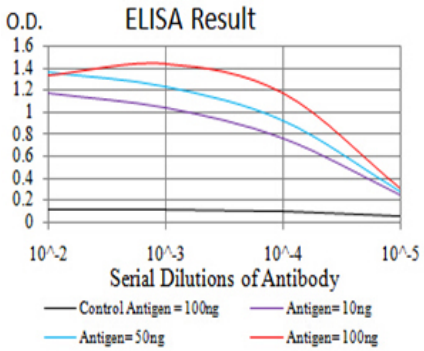
Name	BNIP3 (HGNC:1084)
Synonyms	NIP3

Function	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 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. Plays an important role in the calprotectin (S100A8/A9)-induced cell death pathway.
Cellular Location	Mitochondrion. Mitochondrion outer membrane; Single-pass membrane protein. Note=Coexpression with the EIB 19-kDa protein results in a shift in NIP3 localization pattern to the nuclear envelope. Colocalizes with ACAA2 in the mitochondria. Colocalizes with SPATA18 at the mitochondrion outer membrane

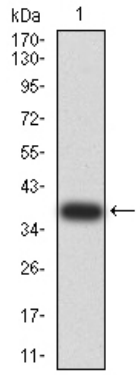
References

1.Tumour Biol. 2015 Jun;36(6):4731-40. ; 2.PLoS One. 2014 May 13;9(5):e96733. ;

Images

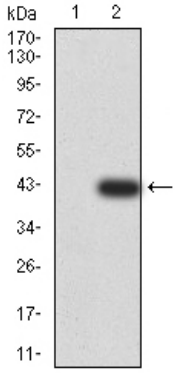


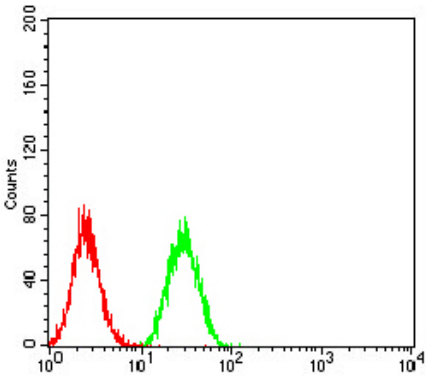
Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)



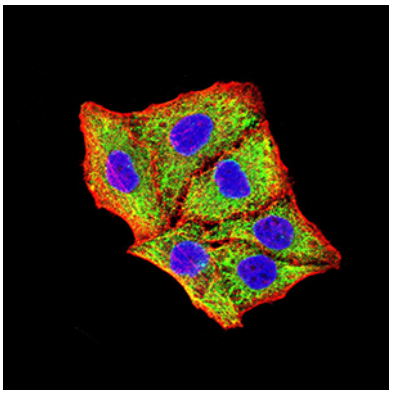
Western blot analysis using BNIP3 mAb against human BNIP3 (AA: 50-155) recombinant protein. (Expected MW is 38 kDa)

Western blot analysis using BNIP3 mAb against HEK293 (1) and BNIP3 (AA: 50-155)-hIgGFc transfected HEK293 (2) cell lysate.

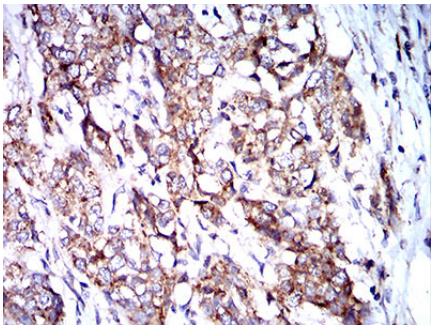




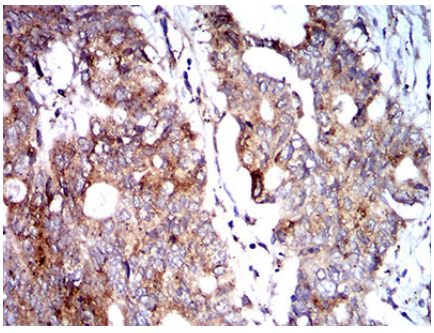
Flow cytometric analysis of Hela cells using BNIP3 mouse mAb (green) and negative control (red).



Immunofluorescence analysis of Hela cells using BNIP3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Secondary antibody from Fisher



Immunohistochemical analysis of paraffin-embedded breast cancer tissues using BNIP3 mouse mAb with DAB staining.



Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using BNIP3 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.