bs-4239R **[Primary Antibody]**

BNIP3 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 664 **SWISS:** Q12983

Target: BNIP3

Immunogen: KLH conjugated synthetic peptide derived from human BNIP3: 101-194/194.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: The adenovirus E1B protein is a viral homolog of the Bcl-2 family of proteins that are involved in regulating cell death. A family of interacting proteins, which are designated Nip or Bnip and include BNIP-1, BNIP-2, BNIP-3 and Nix, associate with both the E1B protein and Bcl-2 proteins to mediate apoptotic signaling. BNIP-1 contains a hydrophobic transmembrane domain, which enables its localization to the nuclear envelope, endoplasmic recticulum and mitochondria. BNIP-2, (previously designated Nip2 and Nip21 in human and mouse respectively), shares homology with the non-catalytic domain of Cdc42 GTPase-activating protein (Cdc42GAP). Through binding to Cdc42GAP, BNIP-2 enhances the GTPase activity of Cdc42GAP, facilitating the hydrolysis of GTP bound to Cdc42 and thereby, mediating the signaling pathways involving receptor kinases, small GTPases and apoptotic proteins. Nix, which is also designated Nip3L or Bnip3L, is highly related to BNIP-3, and both proteins localize to the mitochondria where they associate with Bcl-2 proteins. BNIP-3 preferentially binds to Bcl-xL and induces apoptosis by suppressing the anti-apoptosis activity of Bcl-xL.

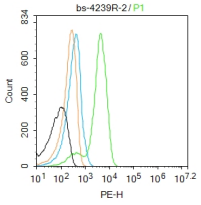
Applications: **Flow-Cyt** (2ug/Test)

Reactivity: Human (predicted: Mouse, Rat, Pig, Cow, Chicken, Dog, Horse)

Predicted MW.: 22 kDa

Subcellular Location: Cell membrane ,Cytoplasm

VALIDATION IMAGES



Blank control:A431. Primary Antibody (green line): Rabbit Anti-BNIP3 antibody (bs-4239R) Dilution: 2µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-PE Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=7.9]** Yunfeng Zhou. et al. A new andrographolide derivative ADA targeting SIRT3-FOXO3a signaling mitigates cognitive impairment by activating mitophagy and inhibiting neuroinflammation in Apoe4 mice. PHYTOMEDICINE. 2023 Dec;:155298 WB,IF ;Mouse. 10.1016/j.phymed.2023.155298
- **[IF=5.168]** Du et al. MicroRNA-145 induces apoptosis of glioma cells by targeting BNIP3 and Notch signaling. (2017) Oncotarget. 8:61510-61527 IF ;Human. 28977881
- **[IF=4.5]** Changbin Zhao. et al. IGF2 promotes the differentiation of chicken embryonic myoblast by regulating mitochondrial remodeling. J CELL PHYSIOL. 2024 Jun;: WB ;Chicken. 38946060
- **[IF=5.396]** Kaidi Ma. et al. Lactobacillus rhamnosus GG ameliorates deoxynivalenol-induced kidney oxidative damage and mitochondrial injury in weaned piglets. Food Funct. 2022 Mar;: WB ;Piglets. 35285834
- **[IF=4.932]** Qifeng Deng. et al. Cordycepin enhances anti-tumor immunity in colon cancer by inhibiting phagocytosis immune checkpoint CD47 expression. Int Immunopharmacol. 2022 Jun;107:108695 WB,IHC ;Mouse. 35305385