

PUMA α / β (H-136): sc-28226

BACKGROUND

PUMA (Bcl-2 binding component 3, JFY1, PUMA/JFY1) is a mitochondrial pro-apoptotic Bcl-2 homology domain (BH3)-only protein that induces rapid apoptosis through a Bax- and mitochondria-dependent pathway. The PUMA gene encodes four proteins originating from different splice variants of the same transcript: PUMA α , β , γ and δ . Both PUMA α and PUMA β contain a BH3 domain, while PUMA γ and PUMA δ lack this domain. The BH3 domain is essential for binding of PUMA α and PUMA β to Bcl-2 or Bcl-x_L. PUMA is an initiator of gamma-radiation apoptosis and glucocorticoid-induced apoptosis in lymphoid cells *in vivo*. Bcl-2 family members generally regulate apoptosis and transmit death signals to mitochondria. Members of this family include both pro- and anti-apoptotic proteins that share homologous sequences known as Bcl-2 homology domains (BH1-4). The BH3 proteins, BID, NOXA, PUMA, NBK, Bim and Bad, are all pro-apoptotic and share sequence homology within the amphipathic α -helical BH3 region.

CHROMOSOMAL LOCATION

Genetic locus: BBC3 (human) mapping to 19q13.32; Bbc3 (mouse) mapping to 7 A2.

SOURCE

PUMA α / β (H-136) is a rabbit polyclonal antibody raised against amino acids 57-193 mapping at the C-terminus of PUMA α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PUMA α / β (H-136) is recommended for detection of PUMA α and PUMA β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PUMA siRNA (h): sc-37153, PUMA siRNA (m): sc-37154, PUMA shRNA Plasmid (h): sc-37153-SH, PUMA shRNA Plasmid (m): sc-37154-SH, PUMA shRNA (h) Lentiviral Particles: sc-37153-V and PUMA shRNA (m) Lentiviral Particles: sc-37154-V.

Molecular Weight of PUMA α / β : 18-24 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, HeLa whole cell lysate: sc-2200 or A-431 + PMA cell lysate: sc-2261.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

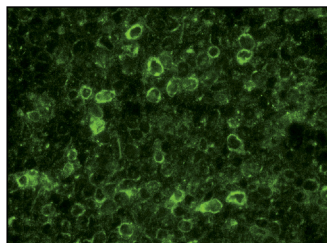
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



PUMA α / β (H-136): sc-28226. Immunofluorescence staining of normal mouse lymph node frozen section showing cytoplasmic and perinuclear staining.

SELECT PRODUCT CITATIONS

- Datta, S., et al. 2007. Bmi-1 cooperates with H-Ras to transform human mammary epithelial cells via dysregulation of multiple growth-regulatory pathways. *Cancer Res.* 67: 10286-10295.
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- Lee, J.C., et al. 2012. Protein L-isoaspartyl methyltransferase regulates p53 activity. *Nat. Commun.* 3: 927.
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- Parody, J.P., et al. 2014. FoxO3a modulation and promotion of apoptosis by interferon- α 2 β in rat preneoplastic liver. *Liver Int.* 34: 1566-1577.
- Wang, B.Y., et al. 2014. Triptolide induces apoptosis of gastric cancer cells via inhibiting the overexpression of MDM2. *Med. Oncol.* 31: 270.
- Bai, L., et al. 2014. BM-1197: a novel and specific Bcl-2/Bcl-x_L inhibitor inducing complete and long-lasting tumor regression *in vivo*. *PLoS ONE* 9: e99404.

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Try **PUMA α / β (G-3): sc-374223**, our highly recommended monoclonal alternative to PUMA α / β (H-136).