

PUMA α / β (C-14): sc-19189

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 γ -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.

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

PUMA α / β (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near 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.

Blocking peptide available for competition studies, sc-19189 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PUMA α / β (C-14) 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), 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 : 18-24 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, Jurkat whole cell lysate: sc-2204 or MOLT-4 cell lysate: sc-2233.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

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.



Try **PUMA α / β (G-3): sc-374223**, our highly recommended monoclonal alternative to PUMA α / β (C-14).