

p-Bcl-2 (Thr 74): sc-16322

BACKGROUND

Apoptosis defines a set of cascades which, when initiated, programs the cell to undergo lethal changes such as membrane blebbing, mitochondrial break down and DNA fragmentation. Bcl-2 is one among many key regulators of apoptosis which are essential for proper development, tissue homeostasis and protection against foreign pathogens. Human Bcl-2 is a 26 kDa, membrane-associated, anti-apoptotic oncoprotein that can promote cell survival through protein-protein interactions with other Bcl-2 related family members, such as the death suppressors Bcl-x_L, Mcl-1, Bcl-w and A1, or the death agonists Bax, Bak, Bik, Bad and BID. The anti-apoptotic function of Bcl-2 can also be regulated through proteolytic processing and phosphorylation. Bcl-2 may promote cell survival by interfering with the activation of the cytochrome c/Apaf-1 pathway through stabilization of the mitochondrial membrane. Mutations in the Bcl-2 gene can contribute to cancers where normal physiological cell death mechanisms are compromised by deregulation of the anti-apoptotic influence of Bcl-2.

CHROMOSOMAL LOCATION

Genetic locus: BCL2 (human) mapping to 18q21.33.

SOURCE

p-Bcl-2 (Thr 74) is available as either goat (sc-16322) or rabbit (sc-16322-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing phosphorylated Thr 74 of Bcl-2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16322 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

p-Bcl-2 (Thr 74) is recommended for detection of Thr 74 phosphorylated Bcl-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 Bcl-2 siRNA (h): sc-29214, Bcl-2 shRNA Plasmid (h): sc-29214-SH and Bcl-2 shRNA (h) Lentiviral Particles: sc-29214-V.

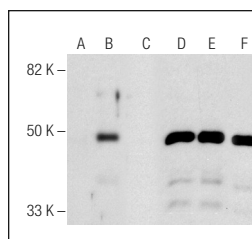
Molecular Weight of p-Bcl-2: 26 kDa.

Positive Controls: Paclitaxel treated Jurkat whole cell lysate.

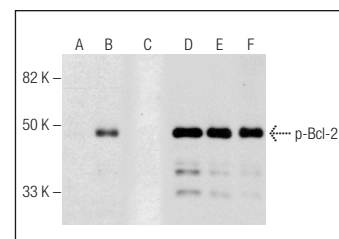
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-16647): use donkey anti-goat IgG-HRP: sc-2020 (range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (range: 1:2000-1:5000), for rabbit primary antibody (sc-16647-R): use goat anti-rabbit IgG-HRP: sc-2004 (range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (range: 1:2000-1:5000); Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: for goat primary antibody (sc-16647): use donkey anti-goat IgG-FITC: sc-2024 (range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (range: 1:100-1:400), for rabbit primary antibody (sc-16647-R): use goat anti-rabbit IgG-FITC: sc-2012 (range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of Bcl-2 phosphorylation in untreated (A,D), human recombinant ERK 2 treated (B,E) and human recombinant ERK 2 and lambda protein phosphatase (sc-200312A) treated (C,F) human recombinant Bcl-2 fusion proteins. Antibodies tested include p-Bcl-2 (Thr 74)-R: sc-16322-R (A,B,C) and Bcl-2 (C-2): sc-7382 (D,E,F).



Western blot analysis of Bcl-2 phosphorylation in untreated (A,D), human recombinant ERK 2 treated (B,E) and human recombinant ERK 2 and lambda protein phosphatase (sc-200312A) treated (C,F) human recombinant Bcl-2 fusion proteins. Antibodies tested include p-Bcl-2 (Thr 74)-R: sc-16322-R (A,B,C) and Bcl-2 (C-2): sc-7382 (D,E,F).

SELECT PRODUCT CITATIONS

1. Dremina, E.S., et al. 2004. Anti-apoptotic protein Bcl-2 interacts with and destabilizes the sarcoplasmic/endoplasmic reticulum Ca²⁺-ATPase (SERCA). *Biochem. J.* 383: 361-370.

RESEARCH USE

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


MONOS
 Satisfaction
 Guaranteed

Try **p-Bcl-2 (A-11): sc-377554** or **p-Bcl-2 (A-3): sc-377513**, our highly recommended monoclonal alternatives to p-Bcl-2 (Thr 74).