

# Bfk (S-15): sc-163742

## BACKGROUND

Bfk, also known as BCL2L15, is a 163 amino acid protein and novel member of the Bcl-2 family that contains both BH2 and BH3 regions, but not BH1, BH4 or a C-terminal hydrophobic membrane anchor. Like Bcl-GL, Bfk does not bind to any Bcl-2 family members, even though its BH3 motif can mediate association with prosurvival proteins. Bfk localizes to cytoplasm, but unlike Bcl-GL, Bfk does not associate with organelles. Existing as four alternatively spliced isoforms, the pro-apoptotic isoforms of Bfk may help to protect against the development of human gastrointestinal malignancy. Bfk is found at low levels in stomach, ovary, bone marrow and spleen, but Bfk is highly expressed in mammary gland during pregnancy, suggesting that Bfk may play a role in mammary development. Bfk appears to be a cytosolic protein whose gene maps to chromosome 1p13.2. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

## REFERENCES

1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Coultas, L., et al. 2003. Bfk: a novel weakly proapoptotic member of the Bcl-2 protein family with a BH3 and a BH2 region. *Cell Death Differ.* 10: 185-192.
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Dempsey, C.E., et al. 2005. Expression of pro-apoptotic Bfk isoforms reduces during malignant transformation in the human gastrointestinal tract. *FEBS Lett.* 579: 3646-3650.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Pujianto, D.A., et al. 2007. Bfk, a novel member of the bcl2 gene family, is highly expressed in principal cells of the mouse epididymis and demonstrates a predominant nuclear localization. *Endocrinology* 148: 3196-3204.
7. SWISS-PROT/TrEMBL (Q5TBC7). World Wide Web URL: <http://www.uniprot.org/uniprot/Q5TBC7>

## CHROMOSOMAL LOCATION

Genetic locus: Bcl2l15 (mouse) mapping to 3 F2.2.

## SOURCE

Bfk (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Bfk of mouse 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-163742 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Bfk (S-15) is recommended for detection of Bfk of mouse and rat 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).

Molecular Weight of Bfk: 18 kDa.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.