

# Bex3 (P-13): sc-67454

## BACKGROUND

The brain-expressed X-linked (Bex) family of proteins is expressed in the central nervous system, with highest levels detected in cerebellum, temporal lobe and pituitary tissues. Bex3, also known as p75NTR-associated cell death executor (NADE), nerve growth factor receptor-associated protein 1 or ovarian granulosa cell 13 kDa protein HGR74, is a member of the Bex family involved in zinc-triggered neuronal cell death. It can be found in prostate, testis, liver, ovarian granulosa cells and seminal vesicle tissue shuttling between the cytoplasm and the nucleus. Bex3 interacts with Smac (second mitochondria-derived activator of caspase) via its C-terminal and regulates apoptosis by the inhibition of Smac ubiquitination. Bex3 also interacts with itself and the NGFR p75 death domain. Bex3 may play a significant role in the pathogenesis of neurogenetic diseases.

## REFERENCES

- Mukai, J., Hachiya, T., Shoji-Hoshino, S., Kimura, M.T., Nadano, D., Suvanto, P., Hanaoka, T., Li, Y., Irie, S., Greene, L.A. and Sato, T.A. 2000. NADE, a p75NTR-associated cell death executor, is involved in signal transduction mediated by the common neurotrophin receptor p75NTR. *J. Biol. Chem.* 275: 17566-17570.
- Mukai, J., Shoji, S., Kimura, M.T., Okubo, S., Sano, H., Suvanto, P., Li, Y., Irie, S. and Sato, T.A. 2002. Structure-function analysis of NADE: identification of regions that mediate nerve growth factor-induced apoptosis. *J. Biol. Chem.* 277: 13973-13982.
- Kendall, S.E., Ryczko, M.C., Mehan, M. and Verdi, J.M. 2003. Characterization of NADE, NRIF and SC-1 gene expression during mouse neurogenesis. *Brain Res. Dev. Brain Res.* 144: 151-158.
- Mukai, J., Suvant, P. and Sato, T.A. 2003. Nerve growth factor-dependent regulation of NADE-induced apoptosis. *Vitam. Horm.* 66: 385-402.
- Kim, A.J., Lee, C.S. and Schlessinger, D. 2004. Bex3 associates with replicating mitochondria and is involved in possible growth control of F9 teratocarcinoma cells. *Gene* 343: 79-89.
- Yoon, K., Jang, H.D. and Lee, S.Y. 2004. Direct interaction of Smac with NADE promotes TRAIL-induced apoptosis. *Biochem. Biophys. Res. Commun.* 319: 649-654.
- Winter, E.E. and Ponting, C.P. 2005. Mammalian BEX, WEX and GASP genes: coding and non-coding chimaerism sustained by gene conversion events. *BMC Evol. Biol.* 5: 54-54.

## CHROMOSOMAL LOCATION

Genetic locus: NGFRAP1 (human) mapping to Xq22.2.

## SOURCE

Bex3 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Bex3 of human origin.

## STORAGE

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

## 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-67454 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Bex3 (P-13) is recommended for detection of Bex3 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 Bex3 siRNA (h): sc-62017.

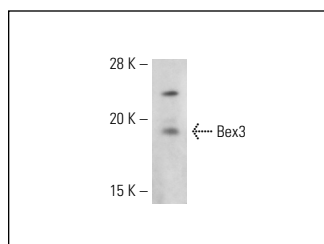
Molecular Weight of Bex3: 15 kDa.

Positive Controls: PC-3 cell lysate: sc-2220.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Bex3 (P-13): sc-67454. Western blot analysis of Bex3 expression in PC-3 whole cell lysate.

## 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.