## SANTA CRUZ BIOTECHNOLOGY, INC.

# Bex2 (N-14): sc-48966



#### 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. Bex1 plays an important role in neuronal differentiation in response to nerve growth factor (NGF), as well as in cell cycle progression. Bex1 is a highly ubiquitinated protein and acts as a link between the cell cycle and neurotrophic factor signaling. Bex2 is highly expressed in the embryonic brain and interacts with LMO2, a LIM domain-containing transcriptional factor, thereby regulating the transcriptional activity of a DNA-binding complex. Bex1 and Bex2 shuttle between the cytoplasm and the nucleus. Bex2 may be implicated in tumor formation, since upregulation leads to increased sensitivity to chemotherapy-induced apoptosis. Bex2 also exhibits powerful tumor suppressor effects.

## REFERENCES

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- Williams, J.W., Hawes, S.M., Patel, B. and Latham, K.E. 2002. Trophectoderm-specific expression of the X-linked Bex1/Rex3 gene in preimplantation stage mouse embryos. Mol. Reprod. Dev. 61: 281-287.
- Yang, Q.S., Xia, F., Gu, S.H., Yuan, H.L., Chen, J.Z., Yang, Q.S., Ying, K., Xie, Y. and Mao, Y.M. 2002. Cloning and expression pattern of a spermatogenesis-related gene, Bex1, mapped to chromosome Xq22. Biochem. Genet. 40: 1-12.
- 4. Alvarez, E., Zhou, W., Witta, S.E. and Freed, C.R. 2005. Characterization of the Bex gene family in humans, mice and rats. Gene 357: 18-28.
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- Koo, J.H., Saraswati, M. and Margolis, F.L. 2005. Immunolocalization of Bex protein in the mouse brain and olfactory system. J. Comp. Neurol. 487: 1-14.

### CHROMOSOMAL LOCATION

Genetic locus: BEX2 (human) mapping to Xq22.

## SOURCE

Bex2 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Bex2 of human origin.

### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48966 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### APPLICATIONS

Bex2 (N-14) is recommended for detection of Bex2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

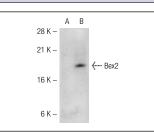
Suitable for use as control antibody for Bex2 siRNA (h): sc-60271, Bex2 shRNA Plasmid (h): sc-60271-SH and Bex2 shRNA (h) Lentiviral Particles: sc-60271-V.

Molecular Weight of Bex2: 15 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

#### DATA



Bex2 (N-14): sc-48966. Western blot analysis of Bex2 expression in non-transfected: sc-110760 (**A**) and human Bex2 transfected: sc-113220 (**B**) 293 whole cell lysates.

#### **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.

MONOS Satisfation Guaranteed Try Bex1/2 (D-6): sc-376342 or Bex2 (C-12): sc-398486, our highly recommended monoclonal alternatives to Bex2 (N-14).