SANTA CRUZ BIOTECHNOLOGY, INC.

cortexin 3 (C-12): sc-164102



BACKGROUND

Cortexin 3, also known as CTXN3 or KABE, is an 81 amino acid single-pass membrane protein that is specifically expressed in kidney and brain. Exsiting as two isoforms due to alternative splicing, cortexin 3 may mediate extracellular or intracellular signaling in the kidney or brain. Highly conserved in vertebrates, cortexin 3 may play an important role in kidney and brain development. The gene encoding cortexin 3 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

- 1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
- 2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
- South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. Am. J. Med. Genet. A 140: 2714-2720.
- Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. Aging Cell 6: 689-697.
- Wang, H.T., et al. 2007. In silico-initiated cloning and molecular characterization of cortexin 3, a novel human gene specifically expressed in the kidney and brain, and well conserved in vertebrates. Int. J. Mol. Med. 20: 501-510.
- Govorin, N.V., Zlova, T.P. and Akhmetova, V.V. 2007. Neuroimmune parameters as markers of therapeutic and rehabilitation efficacy in children with organic mental retardation. Zh. Nevrol. Psikhiatr. Im. S S Korsakova 107: 36-38.
- Potkin, S.G., Turner, J.A., Guffanti, G., Lakatos, A., Fallon, J.H., Nguyen, D.D., Mathalon, D., Ford, J., Lauriello, J. and Macciardi, F. 2009. A genome-wide association study of schizophrenia using brain activation as a quantitative phenotype. Schizophr. Bull. 35: 96-108.

CHROMOSOMAL LOCATION

Genetic locus: CTXN3 (human) mapping to 5q23.2; Ctxn3 (mouse) mapping to 18 D3.

SOURCE

cortexin 3 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of cortexin 3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-164102 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cortexin 3 (C-12) is recommended for detection of cortexin 3 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); non cross-reactive with cortexin 1.

cortexin 3 (C-12) is also recommended for detection of cortexin 3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cortexin 3 siRNA (h): sc-91693, cortexin 3 shRNA Plasmid (h): sc-91693-SH and cortexin 3 shRNA (h) Lentiviral Particles: sc-91693-V.

Molecular Weight of cortexin 3: 9 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) Immunofluo-rescence: 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, **D0 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.