SANTA CRUZ BIOTECHNOLOGY, INC.

REEP3 (E-13): sc-133403



BACKGROUND

Members of the REEP (receptor expression enhancing protein) family contain a TB2/DP-1 and HVA22 domains, which are involved in intracellular trafficking and secretion. REEP3 (receptor expression-enhancing protein 3), also known as receptor accessory protein 3, is a 255 amino acid multi-pass membrane protein belonging to the DP-1 family. REEP3 may enhance the cell surface expression of odorant receptors and may be a regulator of cellular vesicle trafficking between the endoplasmatic reticulum and the Golgi network. The gene encoding REEP3 is located on human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Mutations in the gene encoding REEP3 cause defects in neural development. Two isoforms of REEP3 are produced due to alternative splicing events.

REFERENCES

- Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. Am. J. Med. Genet. 88: 239-243.
- Saito, H., Kubota, M., Roberts, R.W., Chi, Q. and Matsunami, H. 2004. RTP family members induce functional expression of mammalian odorant receptors. Cell 119: 679-691.
- Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. Nature 429: 375-381.
- Castermans, D., Vermeesch, J.R., Fryns, J.P., Steyaert, J.G., Van de Ven, W.J., Creemers, J.W. and Devriendt, K. 2007. Identification and characterization of the TRIP8 and REEP3 genes on chromosome 10q21.3 as novel candidate genes for autism. Eur. J. Hum. Genet. 15: 422-431.
- Yuan, X., Waterworth, D., Perry, J.R., Lim, N., Song, K., Chambers, J.C., Zhang, W., Vollenweider, P., Stirnadel, H., Johnson, T., Bergmann, S., Beckmann, N.D., Li, Y., Ferrucci, L., Melzer, D., Hernandez, D., et al. 2008. Population-based genome-wide association studies reveal six loci influencing plasma levels of liver enzymes. Am. J. Hum. Genet. 83: 520-528.
- Argasinska, J., Rana, A.A., Gilchrist, M.J., Lachani, K., Young, A. and Smith, J.C. 2009. Loss of REEP4 causes paralysis of the *Xenopus* embryo. Int. J. Dev. Biol. 53: 37-43.

CHROMOSOMAL LOCATION

Genetic locus: REEP3 (human) mapping to 10q21.3.

SOURCE

REEP3 (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of REEP3 of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133403 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

REEP3 (E-13) is recommended for detection of REEP3 isoforms 1 and 2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other REEP family members.

REEP3 (E-13) is also recommended for detection of REEP3 isoforms 1 and 2 in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for REEP3 siRNA (h): sc-90768, REEP3 shRNA Plasmid (h): sc-90768-SH and REEP3 shRNA (h) Lentiviral Particles: sc-90768-V.

Molecular Weight of REEP3: 29 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.