SANTA CRUZ BIOTECHNOLOGY, INC.

ZPR1 (LG1): sc-53554

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Epidermal growth factor (EGF) mediates its growth-promoting effects through its interaction with a cell surface glycoprotein designated the epidermal growth factor receptor (EGFR). Binding of epidermal growth factor to its cognate receptor activates a tyrosine kinase activity, intrinsic to the EGF receptor. ZPR1 is a zinc finger-containing protein that is capable of binding to the intracellular tyrosine kinase domain of the epidermal growth factor receptor. Stimulation of mammalian cells with epidermal growth factor reduces ZPR1 affinity for the EGFR and leads to an accumulation of the protein in the nucleus. The ZPR1 zinc finger is necessary for its association with the EGFR.

REFERENCES

1. Savage, C.R., Jr., et al. 1972. The primary structure of epidermal growth factor. J. Biol. Chem. 247: 7612-7621.
2. Reynolds, F.H., Jr., et al. 1981. Human transforming growth factors induces tyrosine phosphorylation of EGF receptors. Nature 292: 259-262.
3. Hunter, T. 1984. The epidermal growth factor receptor gene and its product. Nature 311: 414-416.
4. Gregory, H. 1985. *In vivo* aspects of urogastrone-epidermal growth factor. J. Cell Sci. Suppl. 3: 11-17.
5. Carpenter, G., et al. 1986. Epidermal growth factor, its receptor and related proteins. Exp. Cell Res. 164: 1-10.
6. Carpenter, G. 1987. Receptors for epidermal growth factor and other polypeptide mitogens. Annu. Rev. Biochem. 56: 881-914.
7. Galcheva-Gargova, Z., et al. 1996. Binding of zinc finger protein ZPR1 to the epidermal growth factor receptor. Science 272: 1797-1802.

CHROMOSOMAL LOCATION

Genetic locus: ZPR1 (human) mapping to 11q23.3; Zpr1 (mouse) mapping to 9 A5.2.

SOURCE

ZPR1 (LG1) is a mouse monoclonal antibody raised against ZPR1 of human origin.

PRODUCT

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

STORAGE

Store at 4° C, **DO 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 for detailed protocols and support products.

APPLICATIONS

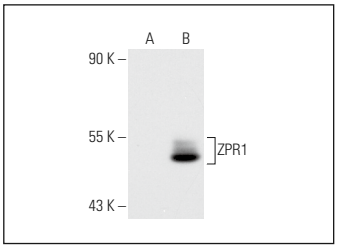
ZPR1 (LG1) is recommended for detection of ZPR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ZPR1 siRNA (h): sc-35282, ZPR1 siRNA (m): sc-35283, ZPR1 shRNA Plasmid (h): sc-35282-SH, ZPR1 shRNA Plasmid (m): sc-35283-SH, ZPR1 shRNA (h) Lentiviral Particles: sc-35282-V and ZPR1 shRNA (m) Lentiviral Particles: sc-35283-V.

Molecular Weight of ZPR1: 50 kDa.

Positive Controls: ZPR1 (m): 293T Lysate: sc-124831 or NIH/3T3 whole cell lysate: sc-2210.

DATA



ZPR1 (LG1): sc-53554. Western blot analysis of ZPR1 expression in non-transfected: sc-117752 (**A**) and mouse ZPR1 transfected: sc-124831 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Todd, A.G., et al. 2010. Analysis of SMN-neurite granules: Core Cajal body components are absent from SMN-cytoplasmic complexes. Biochem. Biophys. Res. Commun. 397: 479-485.

RESEARCH USE

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