

# ZPR1 (C-20): sc-6140

## BACKGROUND

Epidermal growth factor (EGF) mediates its growth-promoting effects through its interaction with a 170 kDa 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. *Ann. 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: ZNF259 (human) mapping to 11q23.3; Zfp259 (mouse) mapping to 9 A5.2.

## SOURCE

ZPR1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ZPR1 of mouse origin.

## 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-6140 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6140 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

ZPR1 (C-20) 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)], 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).

ZPR1 (C-20) is also recommended for detection of ZPR1 in additional species, including equine, canine, bovine and porcine.

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.

ZPR1 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

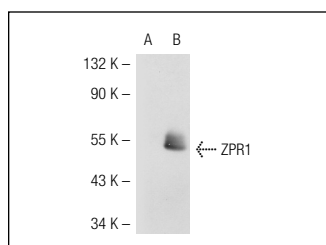
Molecular Weight of ZPR1: 50 kDa.

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

## 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 Blotting 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



ZPR1 (C-20): sc-6140. Western blot analysis of ZPR1 expression in non-transfected: sc-117752 (A) and mouse ZPR1 transfected: sc-124831 (B) 293T whole cell lysates.

## RESEARCH USE

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