

TPRX1 (S-12): sc-131352

BACKGROUND

TPRX1 (tetra-peptide repeat homeobox protein 1) is a 411 amino acid nuclear protein that contains a homeobox DNA-binding domain. Most homeodomain proteins function as transcription factors and play roles in important physiological events such as cell differentiation and embryonic development. The gene encoding TPRX1 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEA-CAM and PSG family and Fc receptors (FcRs). There are two isoforms of TPRX1 that are produced as a result of alternative splicing events.

REFERENCES

1. Boncinelli, E., et al. 1993. Homeobox genes in the developing central nervous system. *Ann. Genet.* 36: 30-37.
2. Klug, A. 1995. Gene regulatory proteins and their interaction with DNA. *Ann. N.Y. Acad. Sci.* 758: 143-160.
3. Gilbert, F. 1997. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 19. Genet. Test.* 1: 145-149.
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the mammalian gene collection (MGC). *Genome Res.* 14: 2121-2127.
5. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
6. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
7. Zhou, S.X., et al. 2004. The progress in complex homeobox domains. *Yi Chuan* 26: 984-990.
8. Booth, H.A. and Holland, P.W. 2007. Annotation, nomenclature and evolution of four novel homeobox genes expressed in the human germ line. *Gene* 387: 7-14.

CHROMOSOMAL LOCATION

Genetic locus: TPRX1 (human) mapping to 19q13.32.

SOURCE

TPRX1 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TPRX1 of human origin.

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 or our catalog for detailed protocols and support products.

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-131352 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-131352 X, 200 µg/0.1 ml.

APPLICATIONS

TPRX1 (S-12) is recommended for detection of TPRX1 of 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).

Suitable for use as control antibody for TPRX1 siRNA (h): sc-97379, TPRX1 shRNA Plasmid (h): sc-97379-SH and TPRX1 shRNA (h) Lentiviral Particles: sc-97379-V.

TPRX1 (S-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TPRX1: 41 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) 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.

RESEARCH USE

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