IL-1R9 (T-14): sc-131571



The Power to Question

BACKGROUND

IL-1R9, also known as X-linked interleukin-1 receptor accessory protein-like 2 (IL1RAPL-2) or three immunoglobulin domain-containing IL-1 receptor-related 1 (TIGIRR-1), is a member of the interleukin-1/ToII-like receptor family expressed in fetal brain. It is a single pass transmembrane protein with a highly conserved cytoplasmic region that is slightly longer than that of other family members. IL-1R9 is highly homologous to IL-1R8 and the IL-1 accessory protein receptor chains. The genes encoding IL-1R9 and IL-1R8 are both found on the X-chromosome in the region associated with X-linked non-syndromic mental retardation. Unlike other family members, IL-1R9 and IL-1R8 do not activate NF κ B.

REFERENCES

- Jin, H., et al. 2000. Two novel members of the interleukin-1 receptor gene family, one deleted in Xp22.1-Xp21.3 mental retardation. Eur. J. Hum. Genet. 8: 87-94.
- Born, T.L., et al. 2000. Identification and characterization of two members of a novel class of the interleukin-1 receptor (IL-1R) family. Delineation of a new class of IL-1R-related proteins based on signaling. J. Biol. Chem. 275: 29946-29954.
- 3. Ferrante, M.I., et al. 2001. IL1RAPL2 maps to Xq and is specifically expressed in the central nervous system. Gene. 275: 217-221.
- Sana, T.R., et al. 2001. Computational identification, cloning, and characterization of IL-1R9, a novel interleukin-1 receptor-like gene encoded over an unusually large interval of human chromosome Xq22.2-q22.3. Genomics 69: 252-262.
- 5. Khan, J.A., et al. 2004. Crystal structure of the Toll/interleukin-1 receptor domain of human IL-1RAPL. J. Biol. Chem. 279: 31664-31670.
- Towne, J.E., et al. 2004. Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NFκB and MAPKs. J. Biol. Chem. 279: 13677-13688.
- 7. Zheng, R.M. and Zhu, S.G. 2005. Role of the central interleukin-1 in stress responses. Sheng Li Xue Bao 57: 414-420.
- Tabolacci, E., et al. 2006. A truncating mutation in the IL1RAPL1 gene is responsible for X-linked mental retardation in the MRX21 family. Am. J. Med. Genet. A. 140: 482-487.
- 9. Gambino, F., et al. 2007. IL1-receptor accessory protein-like 1 (IL1RAPL1), a protein involved in cognitive functions, regulates N-type Ca²⁺-channel and neurite elongation. Proc. Natl. Acad. Sci. USA 104: 9063-9068.

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.

CHROMOSOMAL LOCATION

Genetic locus: IL1RAPL2 (human) mapping to Xq22.3.

SOURCE

IL-1R9 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of IL-1R9 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-131571 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-1R9 (T-14) is recommended for detection of IL-1R9 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 IL-1R9 siRNA (h): sc-90992, IL-1R9 shRNA Plasmid (h): sc-90992-SH and IL-1R9 shRNA (h) Lentiviral Particles: sc-90992-V.

Molecular Weight of IL-1R9: 79 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) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com