

# XPR (D-20): sc-9488

## BACKGROUND

The xenotropic and polytropic retrovirus receptor (XPR) is a cell surface receptor that mediates infection by polytropic and xenotropic murine leukemia viruses, designated P-MLV and X-MLV respectively. In non-murine cells these receptors facilitate infection of both P-MLV and X-MLV retro-viruses, while in mouse cells, XPR selectively permits infection by P-MLV only. XPR is classified with other mammalian type C oncoretrovirus receptors, which include the chemokine receptors that are required for HIV and simian immunodeficiency virus infection. XPR contains several hydrophobic domains indicating that it transverse the cell membrane multiple times, and it may function as a phosphate transporter and participate in G protein-coupled signal transduction. Expression of XPR is detected in a wide variety of human tissues, including pancreas, kidney and heart, and it shares homology with proteins identified in nematode, fly, and plant, and with the yeast SYG1 (suppressor of yeast  $G_{\alpha}$  deletion) protein.

## REFERENCES

- Spain, B.H., et al. 1995. Truncated forms of a novel yeast protein suppress the lethality of a G protein  $\alpha$  subunit deficiency by interacting with the  $\beta$  subunit. *J. Biol. Chem.* 270: 25435-25444.
- Tomonaga, K., et al. 1999. Structures of endogenous nonectropic murine leukemia virus (MLV) long terminal repeats in wild mice: implication for evolution of MLVs. *J. Virol.* 73: 4327-4340.
- Marin, M., et al. 1999. Polymorphisms of the cell surface receptor control mouse susceptibilities to xenotropic and polytropic leukemia viruses. *J. Virol.* 73: 9362-9368.
- Taylor, C.S., et al. 1999. Cloning and characterization of a cell surface receptor for xenotropic and polytropic murine leukemia viruses. *Proc. Natl. Acad. Sci. USA* 96: 927-932.
- Battini, J.L., et al. 1999. A human cell-surface receptor for xenotropic and polytropic murine leukemia viruses: possible role in G protein-coupled signal transduction. *Proc. Natl. Acad. Sci. USA* 96: 1385-1390
- Yang, Y.L., et al. 1999. Receptors for polytropic and xenotropic mouse leukaemia viruses encoded by a single gene at Rmc1. *Nat. Genet.* 21: 216-219.

## CHROMOSOMAL LOCATION

Genetic locus: XPR1 (human) mapping to 1q25.3; Xpr1 (mouse) mapping to 1 G3.

## SOURCE

XPR (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of XPR of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9488 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

XPR (D-20) is recommended for detection of XPR of mouse, rat and 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).

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

Suitable for use as control antibody for XPR siRNA (h): sc-40285, XPR siRNA (m): sc-40286, XPR shRNA Plasmid (h): sc-40285-SH, XPR shRNA Plasmid (m): sc-40286-SH, XPR shRNA (h) Lentiviral Particles: sc-40285-V and XPR shRNA (m) Lentiviral Particles: sc-40286-V.

## 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.