

# LRRC18 (S-16): sc-163036

## BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic  $\alpha/\beta$  horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. The primary function of these motifs is to provide a versatile structural framework to mediate the formation of protein-protein interactions. LRRs are present in a variety of proteins with diverse structure and function, including innate immunity and nervous system development. LRRC18 (leucine-rich repeat-containing protein 18), also known as UNQ933, MGC34773 or VKGE9338, is a 261 amino acid protein that contains seven LRR repeats. Localized to the cytoplasm, LRRC18 may be involved in spermatogenesis and sperm maturation. LRRC18 is expressed as two isoforms produced by alternative splicing and is encoded by a gene mapping to human chromosome 10.

## REFERENCES

1. Kobe, B., et al. 2001. The leucine-rich repeat as a protein recognition motif. *Curr. Opin. Struct. Biol.* 11: 725-732.
2. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
3. Nie, D.S., et al. 2005. Identification of a novel testis-specific gene mtLR1, which is expressed at specific stages of mouse spermatogenesis. *Biochem. Biophys. Res. Commun.* 328: 1010-1018.
4. Matsushima, N., et al. 2005. Structural analysis of leucine-rich-repeat variants in proteins associated with human diseases. *Cell. Mol. Life Sci.* 62: 2771-2791.
5. O'Donnell, C.J., et al. 2007. Genome-wide association study for subclinical atherosclerosis in major arterial territories in the NHLBI's Framingham Heart Study. *BMC Med. Genet.* 8: S4.

## CHROMOSOMAL LOCATION

Genetic locus: LRRC18 (human) mapping to 10q11.23; Lrrc18 (mouse) mapping to 14 B.

## SOURCE

LRRC18 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LRRC18 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-163036 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

LRRC18 (S-16) is recommended for detection of LRRC18 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); non cross-reactive with other LRRC family members.

LRRC18 (S-16) is also recommended for detection of LRRC18 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LRRC18 siRNA (h): sc-90424, LRRC18 siRNA (m): sc-149057, LRRC18 shRNA Plasmid (h): sc-90424-SH, LRRC18 shRNA Plasmid (m): sc-149057-SH, LRRC18 shRNA (h) Lentiviral Particles: sc-90424-V and LRRC18 shRNA (m) Lentiviral Particles: sc-149057-V.

Molecular Weight of LRRC18: 30 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.

## PROTOCOLS

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