

LYPD4 (E-19): sc-247913

BACKGROUND

LYPD4 (LY6/PLAUR domain containing 4), also known as SMR, is a 246 amino acid membrane protein that contains one UPAR/Ly6 domain and belongs to the Ly-6 superfamily. Members of the Ly-6 family contain an LU domain, which consists of approximately 80 amino acids and is characterized by a conserved pattern of ten cysteine residues. Existing as two alternatively spliced isoforms and localizing to the cytoplasm, LYPD4 is encoded by a gene located on human chromosome 19q13.2. Chromosome 19 consists of approximately 63 million bases and makes up over 2% of human genomic DNA. Chromosome 19 is recognized for having the greatest gene density of the human chromosomes and it is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a variety of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

REFERENCES

1. Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. *Genomics* 23: 669-684.
2. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
3. Tsuji, H., et al. 2003. SLURP-2, a novel member of the human Ly-6 superfamily that is up-regulated in psoriasis vulgaris. *Genomics* 81: 26-33.
4. Barrow, A.D. and Trowsdale, J. 2008. The extended human leukocyte receptor complex: diverse ways of modulating immune responses. *Immunol. Rev.* 224: 98-123.
5. Flanagan, K., et al. 2008. Intestinal epithelial cell up-regulation of LY6 molecules during colitis results in enhanced chemokine secretion. *J. Immunol.* 180: 3874-3881.
6. Darvas, M., et al. 2009. Modulation of the Ca²⁺ conductance of nicotinic acetylcholine receptors by Lypd6. *Eur. Neuropsychopharmacol.* 19: 670-681.
7. Choi, S.H., et al. 2009. Metastatic effect of LY-6K gene in breast cancer cells. *Int. J. Oncol.* 35: 601-607.
8. Ni, J., et al. 2009. Cloning and characterization of a human LYPD7, a new member of the Ly-6 superfamily. *Mol. Biol. Rep.* 36: 697-703.
9. Zhang, Y., et al. 2010. Identification and characterization of human LYPD6, a new member of the Ly-6 superfamily. *Mol. Biol. Rep.* 37: 2055-2062.

CHROMOSOMAL LOCATION

Genetic locus: LYPD4 (human) mapping to 19q13.2.

SOURCE

LYPD4 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LYPD4 of human origin.

RESEARCH USE

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

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-247913 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LYPD4 (E-19) is recommended for detection of LYPD4 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); non cross-reactive with other LYPD family members.

Suitable for use as control antibody for LYPD4 siRNA (h): sc-97844, LYPD4 shRNA Plasmid (h): sc-97844-SH and LYPD4 shRNA (h) Lentiviral Particles: sc-97844-V.

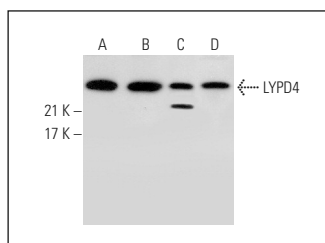
Molecular Weight of LYPD4 isoforms: 27/23 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

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.

DATA



LYPD4 (E-19): sc-247913. Western blot analysis of LYPD4 expression in Jurkat (A), K-562 (B) and Hep G2 (C) whole cell lysates and human liver tissue extract (D).

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.