LYPD5 (P-18): sc-247921



The Power to Question

BACKGROUND

LYPD5 (LY6/PLAUR domain containing 5), also known as PRO4356, is a 251 amino acid membrane protein that contains one UPAR/Ly6 domain and belongs the 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 10 cysteine residues. Existing as two alternatively spliced isoforms and localizing to the cytoplasm, LYPD5 is encoded by a gene located on human chromosome 19q13.33. 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

- Teglund, S., Olsen, A., Khan, W.N., Frängsmyr, L. and Hammarström, S. 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.
- Trowsdale, J., Barten, R., Haude, A., Stewart, C.A., Beck, S. and Wilson, M.J. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
- Tsuji, H., Okamoto, K., Matsuzaka, Y., Iizuka, H., Tamiya, G. and Inoko, H. 2003. SLURP-2, a novel member of the human Ly-6 superfamily that is upregulated in psoriasis vulgaris. Genomics 81: 26-33.
- Barrow, A.D. and Trowsdale, J. 2008. The extended human leukocyte receptor complex: diverse ways of modulating immune responses. Immunol. Rev. 224: 98-123.
- Flanagan, K., Modrusan, Z., Cornelius, J., Chavali, A., Kasman, I., Komuves, L., Mo, L. and Diehl, L. 2008. Intestinal epithelial cell upregulation of LY6 molecules during colitis results in enhanced chemokine secretion. J. Immunol. 180: 3874-3881.
- Darvas, M., Morsch, M., Racz, I., Ahmadi, S., Swandulla, D. and Zimmer, A. 2009. Modulation of the Ca²⁺ conductance of nicotinic acetylcholine receptors by Lypd6. Eur. Neuropsychopharmacol. 19: 670-681.
- 7. Choi, S.H., Kong, H.K., Park, S.Y. and Park, J.H. 2009. Metastatic effect of LY-6K gene in breast cancer cells. Int. J. Oncol. 35: 601-607.
- 8. Ni, J., Lang, Q., Bai, M., Zhong, C., Chen, X., Wan, B. and Yu, L. 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., Lang, Q., Li, J., Xie, F., Wan, B. and Yu, L. 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: LYPD5 (human) mapping to 19q13.31; Lypd5 (mouse) mapping to 7 A3.

SOURCE

LYPD5 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LYPD5 of human origin.

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-247921 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LYPD5 (P-18) is recommended for detection of LYPD5 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 LYPD family members.

Suitable for use as control antibody for LYPD5 siRNA (h): sc-97141, LYPD5 siRNA (m): sc-149178, LYPD5 shRNA Plasmid (h): sc-97141-SH, LYPD5 shRNA Plasmid (m): sc-149178-SH, LYPD5 shRNA (h) Lentiviral Particles: sc-97141-V and LYPD5 shRNA (m) Lentiviral Particles: sc-149178-V.

Molecular Weight of LYPD5 isoforms: 27/22 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.

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 or our catalog for detailed protocols and support products.

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