

PAMR1 (H-300): sc-135132

BACKGROUND

PAMR1 (peptidase domain containing associated with muscle regeneration 1), also known as RAMP or FP938, is a 720 amino acid secreted protein that belongs to the peptidase S1 family. Consisting of one CUB domain, an EGF-like domain, a peptidase S1 domain and two sushi (CCP/SCR) domains, PAMR1 may participate in regeneration of skeletal muscle. PAMR1 is strongly down-regulated in muscle cell lines derived from Duchenne muscular dystrophy (DMD) patients compared to a normal muscle cell line. DMD is the second most common genetically inherited disease in humans and is characterized by progressive limb-girdle distribution of muscle weakness. PAMR1 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 11, which contains 135 million base pairs and 1,400 genes, making up around 4% of human genomic DNA.

REFERENCES

1. Anderson, J.L., Head, S.I., Rae, C. and Morley, J.W. 2002. Brain function in Duchenne muscular dystrophy. *Brain* 125: 4-13.
2. Nakayama, Y., Nara, N., Kawakita, Y., Takeshima, Y., Arakawa, M., Katoh, M., Morita, S., Iwatsuki, K., Tanaka, K., Okamoto, S., Kitamura, T., Seki, N., Matsuda, R., Matsuo, M., Saito, K. and Hara, T. 2004. Cloning of cDNA encoding a regeneration-associated muscle protease whose expression is attenuated in cell lines derived from Duchenne muscular dystrophy patients. *Am. J. Pathol.* 164: 1773-1782.
3. Hara, T., Nakayama, Y. and Nara, N. 2005. Regenerative medicine of skeletal muscle. *Rinsho Shinkeigaku* 45: 880-882.
4. Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., Fitzgerald, M.G., Jaffe, D.B., LaButti, K., Nicol, R., Park, H.S., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
5. Jeon, H., Go, Y., Seo, M., Lee, W.H. and Suk, K. 2010. Functional selection of phagocytosis-promoting genes: cell sorting-based selection. *J. Biomol. Screen.* 15: 949-955.

CHROMOSOMAL LOCATION

Genetic locus: PAMR1 (human) mapping to 11p13; Pamr1 (mouse) mapping to 2 E2.

SOURCE

PAMR1 (H-300) is a rabbit polyclonal antibody raised against amino acids 421-720 mapping at the C-terminus of PAMR1 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.

STORAGE

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

APPLICATIONS

PAMR1 (H-300) is recommended for detection of PAMR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

PAMR1 (H-300) is also recommended for detection of PAMR1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PAMR1 siRNA (h): sc-96863, PAMR1 siRNA (m): sc-143257, PAMR1 shRNA Plasmid (h): sc-96863-SH, PAMR1 shRNA Plasmid (m): sc-143257-SH, PAMR1 shRNA (h) Lentiviral Particles: sc-96863-V and PAMR1 shRNA (m) Lentiviral Particles: sc-143257-V.

Molecular Weight of PAMR1 isoforms 1/2: 81/82 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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 or our catalog for detailed protocols and support products.