LAGE-3 (D-17): sc-243230



The Power to Question

BACKGROUND

LAGE-3 (L antigen family member 3), also known as DXS9879E, ESO3 or ITBA2, is a 143 amino acid protein belonging to the CTAG family. Members of the LAGE/ESO gene family are clustered together on human chromosome Xq28 and have similar exon-intron structures. Unlike the other family members, which are normally expressed only in testis and activated in a wide range of human tumors, LAGE-3 is ubiquitously expressed in somatic tissues. LAGE-3 is also highly conserved in mouse and rat, suggesting that the encoded protein is functionally important. The gene encoding LAGE-3 maps to mouse chromosome X A7.3. An intronless pseudogene with high sequence similarity to this gene is located on human chromosome 9.

REFERENCES

- 1. Faranda, S., Frattini, A., Zucchi, I., Patrosso, C., Milanesi, L., Montagna, C. and Vezzoni, P. 1996. Characterization and fine localization of two new genes in Xq28 using the genomic sequence/EST database screening approach. Genomics 34: 323-327.
- 2. Chen, Y.T., Boyer, A.D., Viars, C.S., Tsang, S., Old, L.J. and Arden, K.C. 1997. Genomic cloning and localization of CTAG, a gene encoding an autoimmunogenic cancer-testis antigen NY-ESO-1, to human chromosome Xq28. Cytogenet. Cell Genet. 79: 237-240.
- Lethe, B., Lucas, S., Michaux, L., De Smet, C., Godelaine, D., Serrano, A., De Plaen, E. and Boon, T. 1998. LAGE-1, a new gene with tumor specificity. Int. J. Cancer 76: 903-908.
- Aarnoudse, C.A., van den Doel, P.B., Heemskerk, B. and Schrier, P.I. 1999. Interleukin-2-induced, melanoma-specific T cells recognize CAMEL, an unexpected translation product of LAGE-1. Int. J. Cancer 82: 442-448.
- Aradhya, S., Bardaro, T., Galgóczy, P., Yamagata, T., Esposito, T., Patlan, H., Ciccodicola, A., Munnich, A., Kenwrick, S., Platzer, M., D'Urso, M. and Nelson, D.L. 2001. Multiple pathogenic and benign genomic rearrangeßments occur at a 35 kb duplication involving the NEMO and LAGE2 genes. Hum. Mol. Genet. 10: 2557-2567.
- 6. Alpen, B., Güre, A.O., Scanlan, M.J., Old, L.J. and Chen, Y.T. 2002. A new member of the NY-ESO-1 gene family is ubiquitously expressed in somatic tissues and evolutionarily conserved. Gene 297: 141-149.
- Ratnamala, U., Lyle, R., Raval, R., Singh, R., Vishnupriya, S., Himabindu, P., Rao, V.V., Aggarwal, S., Paluru, P., Bartoloni, L., Young, T.L., Paoloni-Giacobino, A., Morris, M.A., Nath, S., Antonarakis, S.E. and Radhakrishna, U. 2011. Refinement of the X-linked nonsyndromic high-grade myopia locus (MYP1) on Xq28 and exclusion of thirteen known positional candidate genes by direct sequencing. Invest. Ophthalmol. Vis. Sci. 52: 6814-6819.

CHROMOSOMAL LOCATION

Genetic locus: LAGE3 (human) mapping to Xq28.

SOURCE

LAGE-3 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LAGE-3 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243230 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LAGE-3 (D-17) is recommended for detection of LAGE-3 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 LAGE-1, LAGE-1B or LAGE-2A.

Suitable for use as control antibody for LAGE-3 siRNA (h): sc-90924, LAGE-3 shRNA Plasmid (h): sc-90924-SH and LAGE-3 shRNA (h) Lentiviral Particles: sc-90924-V.

Molecular Weight of LAGE-3: 15 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.

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