

LAGE-3 (E-2): sc-515776

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

- Faranda, S., et al. 1996. Characterization and fine localization of two new genes in Xq28 using the genomic sequence/EST database screening approach. *Genomics* 34: 323-327.
- Chen, Y.T., et al. 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., et al. 1998. LAGE-1, a new gene with tumor specificity. *Int. J. Cancer* 76: 903-908.
- Aarnoudse, C.A., et al. 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., et al. 2001. Multiple pathogenic and benign genomic rearrangements occur at a 35 kb duplication involving the NEMO and LAGE2 genes. *Hum. Mol. Genet.* 10: 2557-2567.
- Alpen, B., et al. 2002. A new member of the NY-ESO-1 gene family is ubiquitously expressed in somatic tissues and evolutionarily conserved. *Gene* 297: 141-149.

CHROMOSOMAL LOCATION

Genetic locus: LAGE3 (mouse) mapping to X A7.3.

SOURCE

LAGE-3 (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-20 at the N-terminus of LAGE-3 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LAGE-3 (E-2) is available conjugated to agarose (sc-515776 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515776 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515776 PE), fluorescein (sc-515776 FITC), Alexa Fluor® 488 (sc-515776 AF488), Alexa Fluor® 546 (sc-515776 AF546), Alexa Fluor® 594 (sc-515776 AF594) or Alexa Fluor® 647 (sc-515776 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515776 AF680) or Alexa Fluor® 790 (sc-515776 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LAGE-3 (E-2) is recommended for detection of LAGE-3 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for LAGE-3 siRNA (m): sc-146637, LAGE-3 shRNA Plasmid (m): sc-146637-SH and LAGE-3 shRNA (m) Lentiviral Particles: sc-146637-V.

Molecular Weight of LAGE-3: 15 kDa.

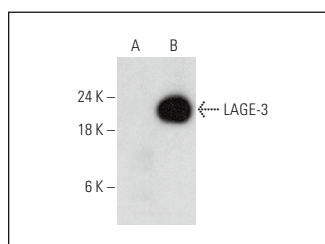
Positive Controls: LAGE-3 (m): 293T Lysate: sc-121277.

RECOMMENDED SUPPORT REAGENTS

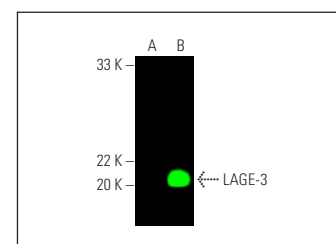
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



LAGE-3 (E-2): sc-515776. Western blot analysis of LAGE-3 expression in non-transfected: sc-117752 (A) and mouse LAGE-3 transfected: sc-121277 (B) 293T whole cell lysates.



LAGE-3 (E-2): sc-515776. Near-infrared western blot analysis of LAGE-3 expression in non-transfected: sc-117752 (A) and mouse LAGE-3 transfected: sc-121277 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

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 for detailed protocols and support products.

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