lactoferrin (m): 293T Lysate: sc-121272



The Power to Question

BACKGROUND

Ferritin and transferrins manage necessary iron-binding fuctions for iron metabolism. Transferrins comprise a class of single-chain, two-sited, metal-binding proteins expressed throughout the fluid and cells of vertebrates. The three major types of transferrin include serotransferrin, lactotransferrin (lactoferrin) and ovotransferrin. Lactoferrin is found in milk, tears and leukocytes. Lactoferrin degrades an IgA₁ protease secreted by *Haemophilus influenzae* and, consequently, allows the human IgA₁ antibody to effectively abolish *Haemophilus* colonization. lactoferrin also attenuates the pathogenic potential of *Haemophilus influenzae* by proteolytic degradation of the HAP adhesin. While lactoferrin may aid in the the transmission of human T cell leukemia virus type 1, lactoferrin inhibits HIV-1 replication at the level of viral fusion and entry into cells. The inhibitory effects of lactoferrin on mixed lymphocyte reactions suggest that lactoferrin may have the ability to sense the activation status of lymphocytes. The gene encoding human lactoferrin maps to chromosome 3p21.31.

REFERENCES

- Aisen, P. and Listowsky, I. 1980. Iron transport and storage proteins. Annu. Rev. Biochem. 49: 357-393.
- Teng, C.T., Pentecost, B.T., Marshall, A., Solomon, A., Bowman, B.H., Lalley, P.A. and Naylor, S.L. 1987. Assignment of the lactotransferrin gene to human chromosome 3 and to mouse chromosome 9. Somat. Cell Mol. Genet. 13: 689-693.
- 3. Zimecki, M., Stepniak, D., Szynol, A. and Kruzel, M. L. 2001. Lactoferrin regulates proliferative response of human peripheral blood mononuclear cells to phytohemagglutinin and mixed lymphocyte reaction. Arch. Immunol. Ther. Exp. 49: 147-154.
- 4. Nibbering, P.H., Ravensbergen, E., Welling, M.M., van Berkel, L.A., van Berkel, P.H., Pauwels, E.K. and Nuijens, J.H. 2001. Human lactoferrin and peptides derived from its N-terminus are highly effective against infections with antibiotic-resistant bacteria. Infect. Immun. 69: 1469-1476.
- Moriuchi, M. and Moriuchi, H. 2001. A milk protein lactoferrin enhances human T cell leukemia virus type 1 and suppresses HIV-1 infection. J. Immunol. 166: 4231-4236.
- Zimecki, M., Stepniak, D., Szynol, A. and Kruzel, M. L. 2001. Lactoferrin regulates proliferative response of human peripheral blood mononuclear cells to phytohemagglutinin and mixed lymphocyte reaction. Arch. Immunol. Ther. Exp. 49: 147-154.

CHROMOSOMAL LOCATION

Genetic locus: Ltf (mouse) mapping to 9 F3.

PRODUCT

lactoferrin (m): 293T Lysate represents a lysate of mouse lactoferrin transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

lactoferrin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive lactoferrin antibodies. Recommended use: 10-20 μ l per lane

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**