



## lactoferrin (LF-10): sc-80549

### BACKGROUND

Ferritin and transferrins manage necessary iron-binding functions for iron metabolism. Transferrins comprise a class of single-chain, two-sided 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. It degrades an IgA<sub>1</sub> protease secreted by *Haemophilus influenzae* and, consequently, allows the human IgA<sub>1</sub> antibody to effectively abolish *Haemophilus influenzae* colonization. Lactoferrin also attenuates the pathogenic potential of *Haemophilus influenzae* by proteolytic degradation of the Hap adhesin. While lactoferrin may aid in the transmission of human T cell leukemia virus type 1, it 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 it may have the ability to sense the activation status of lymphocytes. The gene encoding human lactoferrin maps to chromosome 3p21.31.

### REFERENCES

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6. 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 (human) mapping to 3p21.31.

### SOURCE

lactoferrin (LF-10) is a mouse monoclonal antibody raised against purified lactoferrin from human milk.

### STORAGE

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

### PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

lactoferrin (LF-10) is recommended for detection of lactoferrin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for lactoferrin siRNA (h): sc-41371, lactoferrin shRNA Plasmid (h): sc-41371-SH and lactoferrin shRNA (h) Lentiviral Particles: sc-41371-V.

Molecular Weight of lactoferrin: 78 kDa.

Positive Controls: human PBL whole cell lysate.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.