

lactoferrin (N-20): sc-14431

BACKGROUND

Ferritin and transferrins manage necessary iron-binding functions 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 *H. influenzae* colonization. Lactoferrin also attenuates the pathogenic potential of *H. influenzae* by proteolytic degradation of the Hap adhesin. While lactoferrin may aid in 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.

CHROMOSOMAL LOCATION

Genetic locus: LTF (human) mapping to 3p21.31; Ltf (mouse) mapping to 9 F3.

SOURCE

lactoferrin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of lactoferrin 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.

Blocking peptide available for competition studies, sc-14431 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

lactoferrin (N-20) is recommended for detection of lactoferrin 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), immunohistochemistry (including paraffin-embedded sections) (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 lactoferrin siRNA (h): sc-41371, lactoferrin siRNA (m): sc-41372, lactoferrin shRNA Plasmid (h): sc-41371-SH, lactoferrin shRNA Plasmid (m): sc-41372-SH, lactoferrin shRNA (h) Lentiviral Particles: sc-41371-V and lactoferrin shRNA (m) Lentiviral Particles: sc-41372-V.

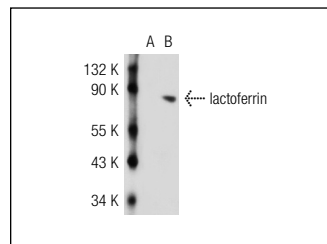
Molecular Weight of lactoferrin: 78 kDa.

Positive Controls: human PBL whole cell lysate, lactoferrin (m2): 293T Lysate: sc-121273 or HeLa whole cell lysate: sc-2200.

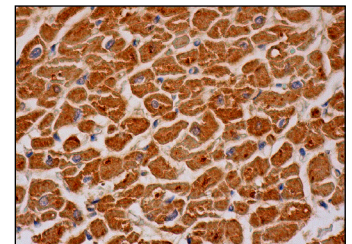
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



lactoferrin (N-20): sc-14431. Western blot analysis of lactoferrin expression in non-transfected: sc-117752 (A) and mouse lactoferrin transfected: sc-121273 (B) 293T whole cell lysate.



lactoferrin (N-20): sc-14431. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Ryan, A.E., et al. 2005. Addressing the "Fas counterattack" controversy: blocking Fas ligand expression suppresses tumor immune evasion of colon cancer *in vivo*. *Cancer Res.* 65: 9817-9823.
- Wang, L., et al. 2010. Deposition of lactoferrin in fibrillar-type senile plaques in the brains of transgenic mouse models of Alzheimer's disease. *Neurosci. Lett.* 481: 164-167.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **lactoferrin (B97): sc-53498** or **lactoferrin (a-bC-lobe): sc-52694**, our highly recommended monoclonal alternatives to lactoferrin (N-20).