

lactoferrin (C-15): sc-14434

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 3q21.31.

CHROMOSOMAL LOCATION

Genetic locus: LTF (human) mapping to 3q21.31; Ltf (mouse) mapping to 9 F3.

SOURCE

lactoferrin (C-15) 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-14434 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

lactoferrin (C-15) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

lactoferrin (C-15) is also recommended for detection of lactoferrin in additional species, including canine and porcine.

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.

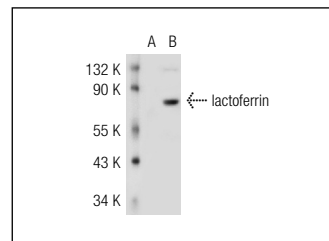
Molecular Weight of lactoferrin: 78 kDa.

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

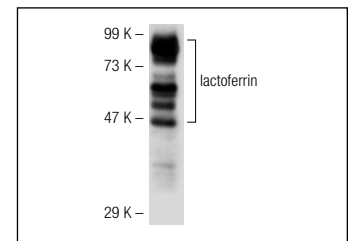
RECOMMENDED SECONDARY REAGENTS

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.

DATA



lactoferrin (C-15): sc-14434. Western blot analysis of lactoferrin expression in non-transfected: sc-117752 (A) and mouse lactoferrin transfected: sc-121273 (B) 293T whole cell lysate.



lactoferrin (C-15): sc-14434. Western blot analysis of lactoferrin expression in human PBL whole cell lysate.

SELECT PRODUCT CITATIONS

1. Fukushima, N., et al. 2005. Gene expression alterations in the non-neoplastic parenchyma adjacent to infiltrating pancreatic ductal adenocarcinoma. *Mod. Pathol.* 18: 779-787.
2. Krachulec, J., et al. 2012. GATA4 is a critical regulator of gonadectomy-induced adrenocortical tumorigenesis in mice. *Endocrinology* 153: 2599-2611.

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.



Try **lactoferrin (B97): sc-53498** or **lactoferrin (a-bC-lobe): sc-52694**, our highly recommended monoclonal alternatives to lactoferrin (C-15).