

## Rabbit Polyclonal Anti-Bovine Lactoferrin antibody

Catalog Number: BLAC-101AP

Lot Number:

### General Information

<b>Product</b>	Bovine Lactoferrin
<b>Description</b>	Lactoferrin Antibody Affinity Purified
<b>Accession #</b>	Uniprot: D3G9G3 GenBank: ACT76166.1
<b>Verified Applications</b>	CM, ELISA, IF, IHC, IP, WB
<b>Species Cross Reactivity</b>	Bovine, Sheep
<b>Host</b>	Rabbit
<b>Immunogen</b>	Purified bovine Lactoferrin protein
<b>Alternative Nomenclature</b>	CKRX antibody, GIG12 antibody, Growth inhibiting protein 12 antibody, Kaliocin 1 antibody, LF antibody, LTF antibody, Neutrophil lactoferrin antibody, Talalactoferrin alfa antibody

### Physical Properties

<b>Quantity</b>	100 µg
<b>Volume</b>	200 µl
<b>Form</b>	Affinity Purified Immunoglobulins
<b>Immunoglobulin &amp; Concentration</b>	0.5 mg/ml IgG in antibody stabilization buffer
<b>Storage</b>	Store at -20°C for long term storage.

### Recommended Dilutions

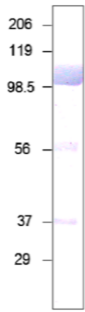
<b>ELISA</b>	1:10,000
<b>Immunocytochemistry</b>	1:200
<b>Immunofluorescence</b>	1:200
<b>Immunohistochemistry</b>	1:200
<b>Immunoprecipitation</b>	1:200
<b>Western Blot</b>	1:500

### Related Products

### Catalog #

<b>BIOTIN-Conjugated</b>	BLAC-BIOTIN
<b>FITC-Conjugated</b>	BLAC-FITC
<b>Antigenic Blocking Peptide</b>	P-BLAC
<b>Western Blot Positive Control</b>	PC-BLAC
<b>Human Lactoferrin Antibody</b>	HLAC-101AP
<b>Alpha Fetoprotein Antibody</b>	AFP-101AP

## Application Verification:



WB of BLAC-101AP with PC-BLAC. 1:500 antibody dilution in DiluObuffer.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

## Overview:

Lactoferrin, an iron-binding glycoprotein with an approximate molecular weight of 80 kDa has two iron binding domains each housing one  $\text{Fe}^{3+}$  and the synergistic  $\text{CO}_3^{2-}$  ion (1). The crystal structure of diferric form of human lactoferrin at 2.2Å resolution exhibits 5330 protein atoms,  $2\text{Fe}+2$ ,  $2\text{CO}_3-2$  and 98 carbohydrate atoms (1). Lactoferrin is absorbed from intestine by apical side of the membrane and localized to the nuclei (2). Anti-lactoferrin antibodies were detected in some patients with rheumatoid arthritis and systemic lupus erythematosus and other muscle diseases (3). Intravenous infusion of lactoferrin is also protective against lethal dose of *E. coli* induced bacteremia by a mechanism that down regulates neutrophil TNF alpha secretion (4). Recombinant human lactoferrin (rhLF), expressed and extracted from rice seed, is being evaluated for use as a dietary supplement to treat iron deficiency and/or iron deficiency-induced anemia. Lactoferrin has been shown to have a role in immune system and in early development of embryo. A specific receptor for lactoferrin binding has been implicated in human fetal intestine (4). Early embryonic localization of lactoferrin by IHC has suggested its presence in various tissues including intestinal epithelium, kidney, and various regions of the brain.

FabGennix has produced affinity purified antibodies to human (HLAC-101AP) and bovine (BLAC-101AP) Lactoferrin proteins. These antibodies are generated in rabbit using purified human or bovine Lactoferrin proteins. The Lactoferrin antibodies were then affinity purified using immobilized antigenic proteins and pre-adsorbed on an immobilized heterologous Lactoferrin matrix to remove the cross-reacting antibodies. Blocking protein is also available, please inquire to order. FabGennix also provides western blot positive controls for antibodies in ready-to-use buffer for easy identification of respective proteins. Antibodies can be labeled with secondary enzymes or fluorophores, please inquire for more information. For a complete listing of all FabGennix products and lab services, please visit: <http://fabgennix.com>

## References:

1. Sharma AK. Purification, crystallization and preliminary crystallographic analysis of mare lactoferrin. *Acta Crystallogr D Biol Crystallogr.* 1996 Nov;52(Pt 6):1196-8.
2. Ashida K, Sasaki H, Suzuki YA, Lonnerdal B. Cellular internalization of lactoferrin in intestinal epithelial cells. *Biomaterials.* 2004 Jun;17(3):311-5. Related Articles, Links
3. Haridas M. Structure of human diferric lactoferrin refined at 2.2 Å resolution. *Acta Crystallogr D Biol Crystallogr.* 1995 Sep;51(Pt 5):629-46.
4. Zimecki M, Artym J, Chodaczek G, Kocieba M, Kruzel ML. Protective effects of lactoferrin in *Escherichia coli*-induced bacteremia in mice: relationship to reduced serum TNF alpha level and increased turnover of neutrophils. *Inflamm Res.* 2004 Jul;53(7):292-6. Epub 2004 Jun 25.

For users who may require large amounts of the products listed above, please inquire about bulk material discounts. This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.