



FabGennix Inc.
INTERNATIONAL

New Item New Item

Customer Service: 1-800 786 1236
Technical Service: 214 387 8105
Fax: 214 387 0870
Info@fabgennix.com
www.fabgennix.com

Antibodies to Iron Binding proteins (Lactoferrin)

Anti-Human Lactoferrin antibodies (HLAC-100P and HLAC-101AP)

Lactoferrin, an iron-binding glycoprotein with an approximate molecular weight of 80 kDa. The protein has two iron binding domains each housing one Fe(3+) and the synergistic CO(3)(2-) ion (1). The crystal structure of diferric form of human lactoferrin at 2.2A resolution exhibit 5330 protein atoms, 2Fe+2, 2CO3-2 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 induce bacteremia by a mechanism that down regulate neutrophil TNF alfa 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 (5). 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 International Inc. has produced affinity purified antibodies to human and bovine 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. Limited quantities of blocking protein is also available (please inquire). FabGennix, Inc., will also provide Western blot positive controls for most of these antibodies in ready-to-use buffer for easy identification of respective proteins. FabGennix International Inc. will also label lactoferrin antibodies to fluorophores or to alkaline-phosphatase or horseradish peroxidase for a nominal price.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Price
HLAC-100P	Rabbit	Anti-Human lactoferrin antibodies	H	100 µg	205
HLAC-101AP	Rabbit	Affinity purified lactoferrin (human)	H	100 µg	225
P-HLAC	protein	Antigenic blocking protein	H	250 ug	115
PC-HLAC	h	Western blot positive control(Human)	H	5 appl	185

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

Immunogen: Affinity purified human lactoferrin protein

Concentration: HLAC-101AP = 0.75-1.2 mg/ml of antibody stabilization buffer

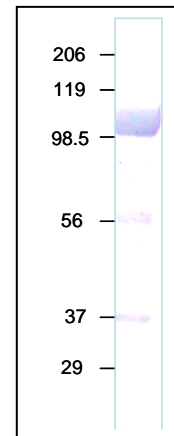
Applications: Antibody HLAC-100P and HLAC-101AP is ideal for western blotting immunoprecipitation, western blotting, and immunocytochemistry/immunohistochemistry assays. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for a specific assay. Other applications have not been tested.

Suggested Dilutions: Western blotting: > 1:500; Immunoprecipitation & i.p pull-down assays: 1 > 1:200

Protocols: Standard protocol for various applications (Western blot; immunoprecipitation and immunohistochemistry) of this antibody is provided with the product specification sheet, however, FabGennix Inc. strongly recommends investigators to optimize conditions for use of this antibody in their laboratories.

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. *Biometals.* 2004 Jun;17(3):311-5. Related Articles, Links
3. Haridas M. Structure of human diferric lactoferrin refined at 2.2 A resolution. *Acta Crystallogr D Biol Crystallogr.* 1995 Sep;51(Pt 5):629-46.
4. Zimecki M, Artym J, Chodaczek G, Kocieba M, Kruzyl 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.



Western Blot of human lactoferrin
Western blot positive control (PC-HLAC) with HLAC-101AP. Antibody 1:500 diluted in DilObuffer. MWM are indicated on left.

* For users who may require large amounts of CaMK-301AP, please enquire about bulk material discounts.

This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

011502-0020SF1001Z-rev10.00

FabGennix Inc.
INTERNATIONAL

5850 Town and Country Blvd. Suite 301. Frisco, TX 75034

Customer service: 1800 786 1236; Technical Support: 214 387 8105