# abcam

# Product datasheet

# Anti-Lactoferrin antibody ab15811

★★★★★ 3 Abreviews 20 References 1 Image

#### Overview

Product name Anti-Lactoferrin antibody

**Description** Rabbit polyclonal to Lactoferrin

Host species Rabbit

Tested applications Suitable for: IP, ICC, IHC-P, ELISA, WB

Species reactivity Reacts with: Human

**Immunogen** Full length native protein (purified) (Human).

**General notes** 

Lactoferrin is 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. The crystal structure form of human lactoferrin at 2.2A resolution exhibits 5330 protein atoms,  $2Fe^{2+}$ ,  $2CO_3^{2-}$  and 98 carbohydrate atoms. Lactoferrin is absorbed from intestine by apical side of the membrane and localized to the nuclei. Intravenous infusion of lactoferrin is protective against lethal doses of E coli and induce bacterimia by a mechanism that downregulates neutrophil TNF alfa secretion. 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 the immune system and in early development of the embryo. A specific receptor for lactoferrin binding has been implicated in the human fetal intestine. Early embryonic localisation of lactoferrin by IHC has suggested its presence in various tissues including intestinal epitheliuem, kiney, and various regions of the brain.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

#### **Properties**

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

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80°C. Avoid freeze / thaw cycle.

**Purity** Immunogen affinity purified

Purification notes Affinity purified using immobilized antigenic proteins and pre adsorbed on an immobilized

heterologus lactoferin matrix to remove the cross reacting antibodies.

**Primary antibody notes**Lactoferrin is an iron binding glycoprotein with an approximate molecular weight of 80 kDa. The protein has two iron binding domains each housing one Fe<sup>3+</sup> and the synergistic CO<sub>3</sub><sup>2-</sup> ion. The

crystal structure form of human lactoferrin at 2.2A resolution exhibits 5330 protein atoms,  $2Fe^{2+}$ ,  $2CO_3^{2-}$  and 98 carbohydrate atoms. Lactoferrin is absorbed from intestine by apical side of the membrane and localized to the nuclei. Intravenous infusion of lactoferrin is protective against lethal doses of E coli and induce bacterimia by a mechanism that downregulates neutrophil TNF alfa secretion. 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 the immune system and in early development of the embryo. A specific receptor for lactoferrin binding has been implicated in the

human fetal intestine. Early embryonic localisation of lactoferrin by IHC has suggested its presence in various tissues including intestinal epitheliuem, kiney, and various regions of the

brain.

**Clonality** Polyclonal

**Isotype** IgG

### **Applications**

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab15811 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC		Use at an assay dependent concentration.
IHC-P	*** <u>*</u> (1)	Use at an assay dependent concentration.
ELISA	<b>★★★★</b> <u>(1)</u>	Use at an assay dependent concentration. PubMed: 17244155
WB	<b>★☆☆☆☆(1)</b>	1/500. Predicted molecular weight: 79 kDa.

# **Target**

#### **Function**

Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate.

Lactotransferrin has antimicrobial activity which depends on the extracellular cation concentration. Lactoferroxins A, B and C have opioid antagonist activity. Lactoferroxin A shows preference for mu-receptors, while lactoferroxin B and C have somewhat higher degrees of preference for kappa-receptors than for mu-receptors.

The lactotransferrin transferrin-like domain 1 functions as a serine protease of the peptidase S60 family that cuts arginine rich regions. This function contributes to the antimicrobial activity.

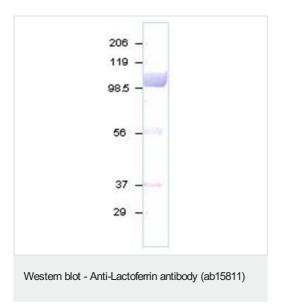
**Sequence similarities** Belongs to the transferrin family.

Contains 2 transferrin-like domains.

Cellular localization

Secreted.

# **Images**



Anti-Lactoferrin antibody (ab15811) at 1/500 dilution + Human Lactoferrin

**Predicted band size:** 79 kDa **Observed band size:** 99 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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