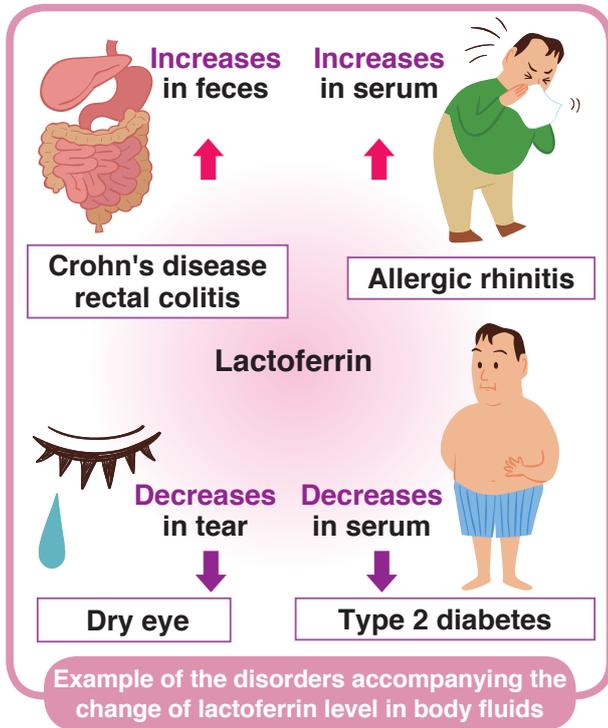


CircuLex Lactoferrin ELISA Kit



Lactoferrin is an iron-binding glycoprotein of the transferrin family that is expressed in most biologic fluids, such as the breast milk, particularly the colostrums, tears, sweat, saliva and other exocrine secretions of mammals.

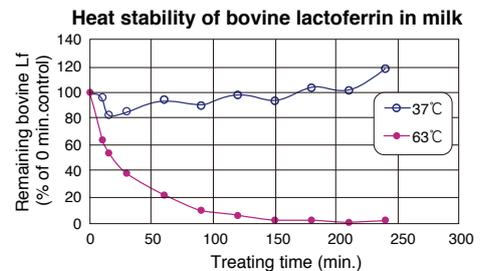
As a major component of mammals' innate immune system, lactoferrin has been shown to have numerous functions such as below.

- 1 "Antiviral effect"
By binding to the envelope of the Hepatitis C virus (HCV), lactoferrin prevents infiltration of HCV to the target cells, and suppresses viral replication.
- 2 "Antibacterial effect"
By chelating iron, lactoferrin suppresses the proliferation of iron requiring bacteria.
- 3 "Anti-inflammatory effect"
By strongly binding to endotoxin (LPS), lactoferrin inhibits the binding of LPS to macrophages and suppresses the production of inflammatory cytokines such as TNF- α and IL-6.
- 4 "Immunoregulatory effect"
Lactoferrin stimulates cytotoxic activity of natural killer cells (NK cells).
- 5 "Antitumor effect"
Lactoferrin induces the apoptosis of tumor cells, or prevent the propagation of tumors by inhibiting angiogenesis.

Focusing on anti-inflammatory effects, the lactoferrin in various biologic fluids are considered as markers of inflammation. It has been reported that fecal lactoferrin is useful as a sensitive and specific marker in identifying intestinal inflammation such as Crohn's disease and chronic inflammatory bowel disease (IBD). Combination of several markers, such as S100A8/A9 complex, defensin, elastase, MPO and I-FABP may be useful for classifying IBD.



- ✓ Proliferation of *Lactobacillus bifidus*
- ✓ Improvement of anemia
- ✓ Reduction of visceral fat
- ✓ Prevention of arteriosclerosis by inhibiting the uptake of denatured LDL



In addition, bovine milk prior to high temperature pasteurization (raw milk) contains large quantities of lactoferrin, and oral intake of lactoferrin has been reported to cause several effects that maintain and promote health:

- 1 Proliferation of *Lactobacillus bifidus*
- 2 Improvement of anemia
- 3 Reduction of visceral fat
- 4 Prevention of arteriosclerosis by inhibiting the uptake of denatured LDL

Because of these effects, taking lactoferrin by milk products and supplements attracts public interest.

Code No.	Product Name	Size
CY-8089	CircuLex Human Lactoferrin ELISA Kit	96 assays
CY-8098	CircuLex Bovine Lactoferrin ELISA Kit	96 assays

