

Human Lactoferrin ELISA Kit, Fluorescent ab229392

重组 CatchPoint® SimpleStep ELISA®

6 图像

概述

产品名称 人Lactoferrin ELISA试剂盒, Fluorescent  
检测方法 Fluorescent  
精确度

批次内

| 样品    | n | Mean | SD | CV%  |
|-------|---|------|----|------|
| Serum | 8 |      |    | 5.1% |

批次间

| 样品    | n | Mean | SD | CV%  |
|-------|---|------|----|------|
| Serum | 3 |      |    | 5.4% |

样品类型 Cell culture supernatant, Saliva, Milk, Urine, Serum, Hep Plasma, EDTA Plasma, Cit plasma  
检测类型 Sandwich (quantitative)  
灵敏度 17.7 pg/ml  
范围 19.5 pg/ml - 80000 pg/ml  
回收率

特定样本回收率

| 样品类型               | 平均% | 范围          |
|--------------------|-----|-------------|
| Saliva             | 120 | 113% - 126% |
| Milk               | 109 | 99% - 118%  |
| Urine              | 99  | 99% - 100%  |
| Serum              | 102 | 100% - 105% |
| Cell culture media | 86  | 86% - 86%   |
| Hep Plasma         | 106 | 103% - 108% |
|                    |     |             |

| 样品类型        | 平均% | 范围          |
|-------------|-----|-------------|
| EDTA Plasma | 108 | 105% - 110% |
| Cit plasma  | 110 | 109% - 111% |

检测时间

1h 30m

实验步骤

One step assay

种属反应性

与反应: Human

产品概述

Lactoferrin *in vitro* CatchPoint SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Lactoferrin protein in human serum, plasma, milk, urine, saliva, and cell culture supernatants.

This CatchPoint SimpleStep ELISA kit has been **optimized for Molecular Devices Microplate Readers**. Click [here](#) for a list of recommended Microplate Readers.

If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at [www.softmaxpro.org](http://www.softmaxpro.org).

The CatchPoint SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plate reader at 530/570/590 nm Excitation/Cutoff/Emission.

说明

Transferrins are iron binding transport proteins which can bind two Fe<sup>3+</sup> ions in association with the binding of an anion, usually bicarbonate. Lactoferrin is a member of the transferrin family and is a major iron-binding and multifunctional protein found in exocrine fluids such as breast milk and mucosal secretions. High levels of Lactoferrin are found in saliva and tears, intermediate levels in serum and plasma, and low levels in urine. The canonical sequence of Lactoferrin (known as isoform 1) is 710 amino acids in length and runs at 78.2 kDa. Isoform Delta-Lactoferrin (or DeltaLF) is missing amino acids 1 – 44 of the canonical sequence. Mouse and rat Lactoferrin are 71% and 62% identical to human Lactoferrin, respectively.

Lactoferrin possesses antibacterial, antiviral, anti-inflammatory, and immunoregulatory properties. The presence of Lactoferrin in neutrophils and the release of Lactoferrin during inflammation suggest that Lactoferrin is involved in phagocytic killing and immune responses. Additionally, Lactoferrin mediates bacteriostasis through its ability to sequester free iron and inhibit microbial growth. Lactoferrin also directs bactericidal properties leading to the release of lipopolysaccharides from the bacterial outer membrane. Furthermore, Lactoferrin may play a role in the regulation of bone growth because it has anabolic, differentiating, and anti-apoptotic effects on osteoblasts and can also inhibit osteoclastogenesis. Salivary Lactoferrin plays an important role in protecting the oral cavity against several oral pathogens including *Streptococcus mutans*. Additionally, increased levels of Lactoferrin in fecal samples is used as a marker of active inflammatory bowel disease (IBD).

平台Pre-coated microplate (12 x 8 well strips)

性能

存放说明Store at +4°C. Please refer to protocols.

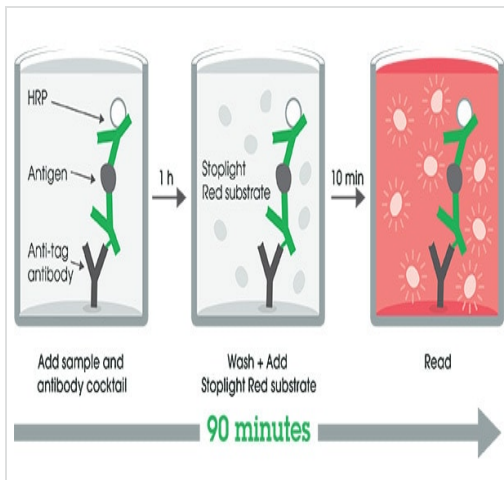
| 组件   | 1 x 96 tests |
|--|--------------|
| 100X Stoplight Red Substrate                   | 1 x 120µl    |
| 10X Human Lactoferrin Capture Antibody         | 1 x 600µl    |
| 10X Human Lactoferrin Detector Antibody        | 1 x 600µl    |
| 10X Wash Buffer PT (ab206977)                  | 1 x 20ml     |
| 500X Hydrogen Peroxide (H2O2, 3%)              | 1 x 50µl     |
| Antibody Diluent 5BI                           | 1 x 6ml      |
| Human Lactoferrin Lyophilized Purified Protein | 2 vials      |
| Plate Seals                                    | 1 unit       |
| Sample Diluent NS (ab193972)                   | 1 x 50ml     |
| SimpleStep Pre-Coated Black 96-Well Microplate | 1 unit       |
| Stoplight Red Substrate Buffer                 | 1 x 12ml     |

功能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.

序列相似性Belongs to the transferrin family.  
Contains 2 transferrin-like domains.

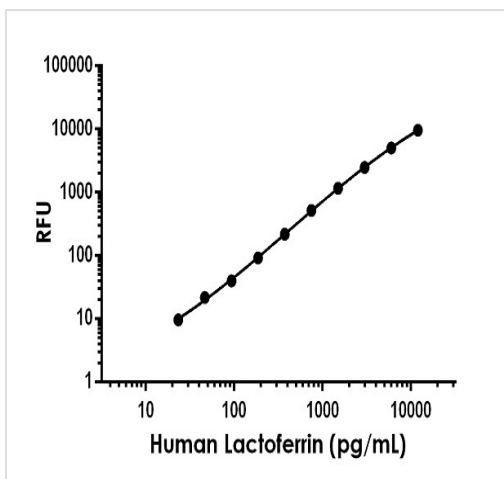
细胞定位Secreted.

图片



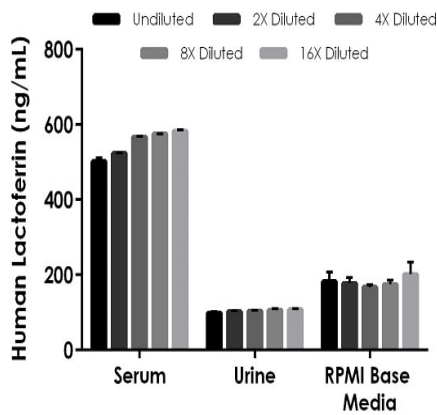
Catchpoint ELISA Protocol Diagram

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



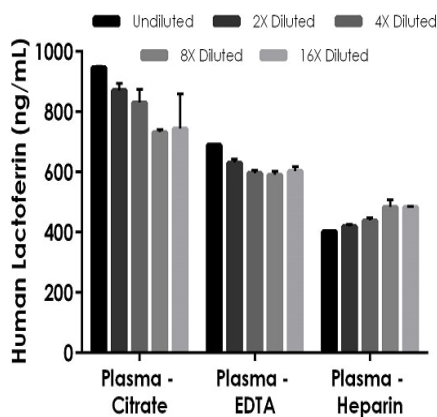
Example of human Lactoferrin standard curve in Sample Diluent NS

Background-subtracted data values (mean  $\pm$  SD) are graphed.



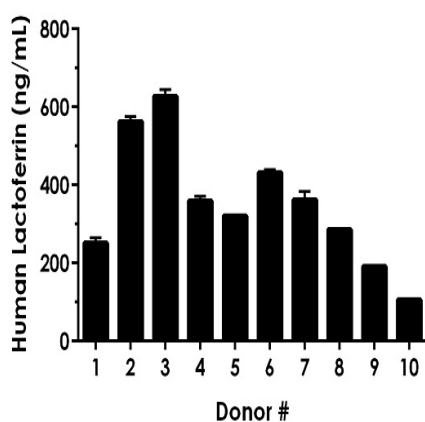
Linearity of dilution of native Lactoferrin in serum and urine and spiked Lactoferrin in media

Native human Lactoferrin protein was measured in serum diluted 1:64 and urine diluted 1:8 in Sample Diluent NS prior to a 2-fold dilution series in Sample Diluent NS. Purified human Lactoferrin protein was spiked into cell culture media diluted 1:20 prior to a fold dilution series in Sample Diluent NS. The interpolated dilution factor corrected values are graphed (mean  $\pm$  SD).



Linearity of dilution of native Lactoferrin in human plasmas

Native human Lactoferrin protein was measured in citrate plasma (1:128), EDTA plasma (1:150), and heparin plasma (1:64) diluted in a 2-fold dilution series in Sample Diluent NS. The interpolated dilution factor corrected values are graphed (mean  $\pm$  SD).



Levels of Lactoferrin in human donors

Ten individual healthy male donors and one pooled sample ( $n = 50$ ) were evaluated for the presence of Lactoferrin in serum using this assay. Results were interpolated from the standard curve in Sample Diluent NS and corrected by sample dilution (1:75). In the 10 individual donors, the mean level of Lactoferrin is 350.3 ng/mL with a range of 106.2 – 627.7 ng/mL and a standard deviation of 159.4 ng/mL.

Powered by  
recombinant antibodies



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Human Lactoferrin ELISA Kit,  
Fluorescent (ab229392)

To learn more about the advantages of recombinant antibodies see [here](#).

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

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