

Active Lactoferrin (LTF) Instruction Manual

SBPA172Cp01

Capra hircus; Caprine (Goat)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

Isoelectric Point

8.9

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

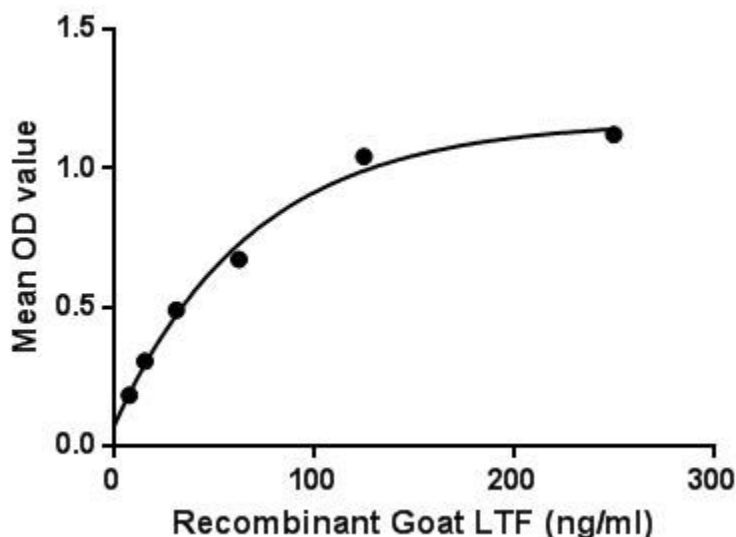


Figure. The binding activity of LTF with CLU.

Lactotransferrin (LTF), also known as actoferrin (LF), is a multifunctional protein of the transferrin family. Lactoferrin belongs to the innate immune system. Apart from its main biological function, namely binding and transport of iron ions, lactoferrin also has antibacterial, antiviral, antiparasitic, catalytic, anti-cancer, and anti-allergic functions and properties. LTF is widely represented in various secretory fluids, such as milk, saliva, tears, and nasal secretions. It is also present in secondary granules of PMN and is secreted by some acinar cells. Besides, Clusterin (CLU) has been identified as an interactor of LTF, thus a binding ELISA assay was conducted to detect the interaction of recombinant goat LTF and recombinant goat CLU. Briefly, LTF were diluted serially in PBS, with

0.01% BSA (pH 7.4). Duplicate samples of 100 μ L were then transferred to CLU-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-LTF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the wells and read at 450nm immediately. The binding activity of LTF and CLU was shown in Figure 1, and this effect was in a dose dependent manner.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

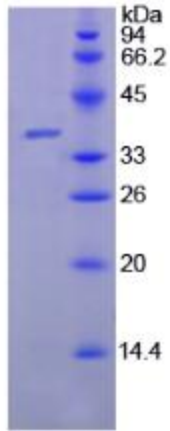


Figure. SDS-PAGE

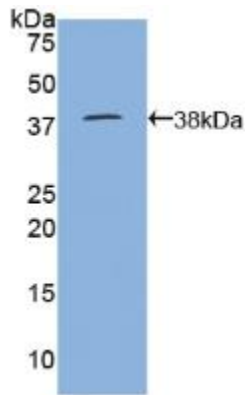


Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.