

Active Prolactin (PRL) Instruction Manual

SBPA194Hu61

Homo sapiens (Human)

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

> 95%

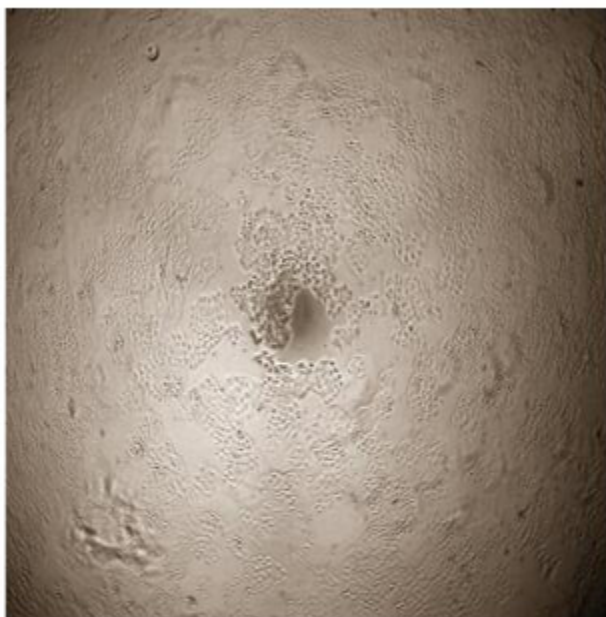
Isoelectric Point

6.2

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



A



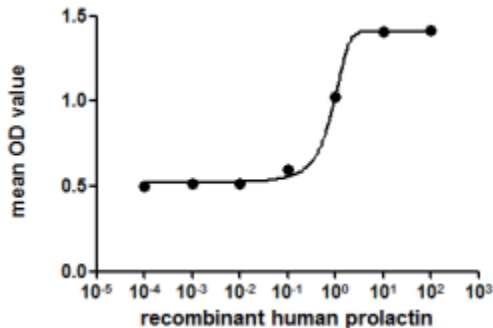
B

PRL (prolactin), also known as luteotropin, is a hormone secreted from the pituitary gland and is best known for its role in enabling mammals to produce milk. PRL plays an essential role in metabolism, regulation of the immune system. According to reports, PRL also stimulates proliferation of certain cells, including MCF-7. Thus, proliferation assay of PRL was conducted using MCF-7 cells. Briefly, MCF-7 cells were seeded into triplicate wells of 96-well plates at a density of 2,000cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the

addition of various concentrations of PRL. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ L of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37oC.

(A) MCF-7 cells cultured in DMEM, stimulated with 1ng/mL PRL for 72h;
(B) Unstimulated MCF-7 cells cultured in DMEM for 72h.

Figure. Cell proliferation of MCF-7 cells after stimulated with PRL.



The dose-effect curve of PRL was shown in Figure 2. It was obvious that PRL significantly promoted cell proliferation of MCF-7 cells. The ED50 for this effect is typically 3.709 to 8.973 ng/mL.

Figure. The dose-effect curve of PRL on MCF-7 cells.

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

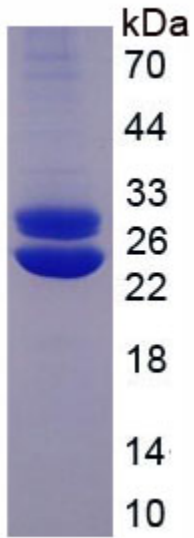


Figure. SDS-PAGE

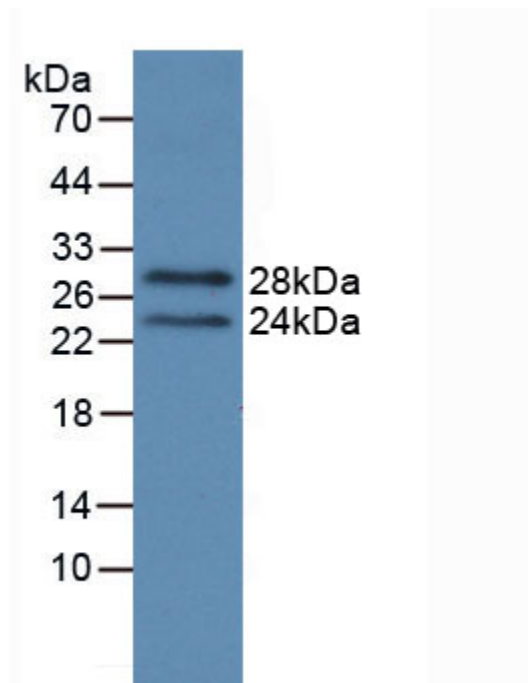


Figure. Western Blot

[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.