

Active Surfactant Protein C (SP-C) Instruction Manual

SBPB252Ra01

Rattus norvegicus (Rat)

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%

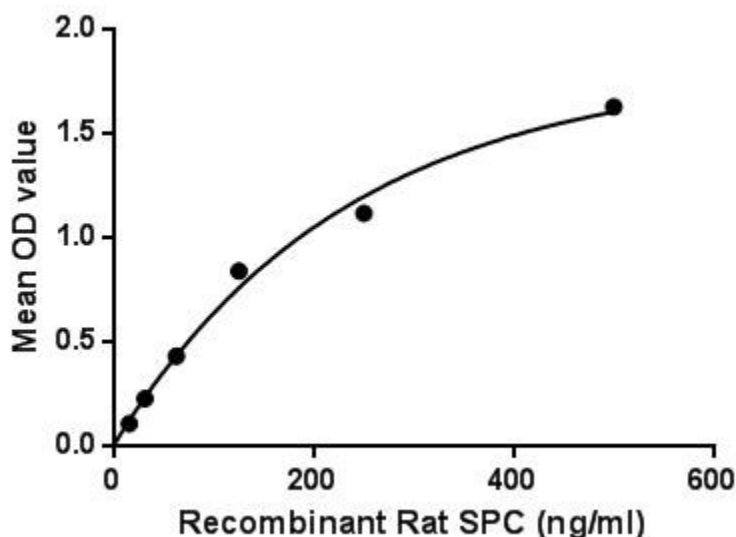
Isoelectric Point

6.6

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



Surfactant Associated Protein C (SPC) is one of the pulmonary surfactant proteins. It is a membrane protein which manufactures surfactant. The propeptide of pulmonary surfactant C has an N-terminal alpha-helical segment whose suggested function was stabilization of the protein structure, since the latter can irreversibly transform from its native alpha-helical structure to beta-sheet aggregates and form amyloid fibrils. Besides, Monokine Induced By Interferon Gamma (MIg) has been identified as an interactor of SPC, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat SPC and recombinant rat MIg. Briefly, SPC were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to MIg-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and

incubated for 1h with anti-SPC 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 50µL stop solution to the wells and read at 450nm immediately. The binding activity of SPC and MIg was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of SPC with MIg.

USAGE

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

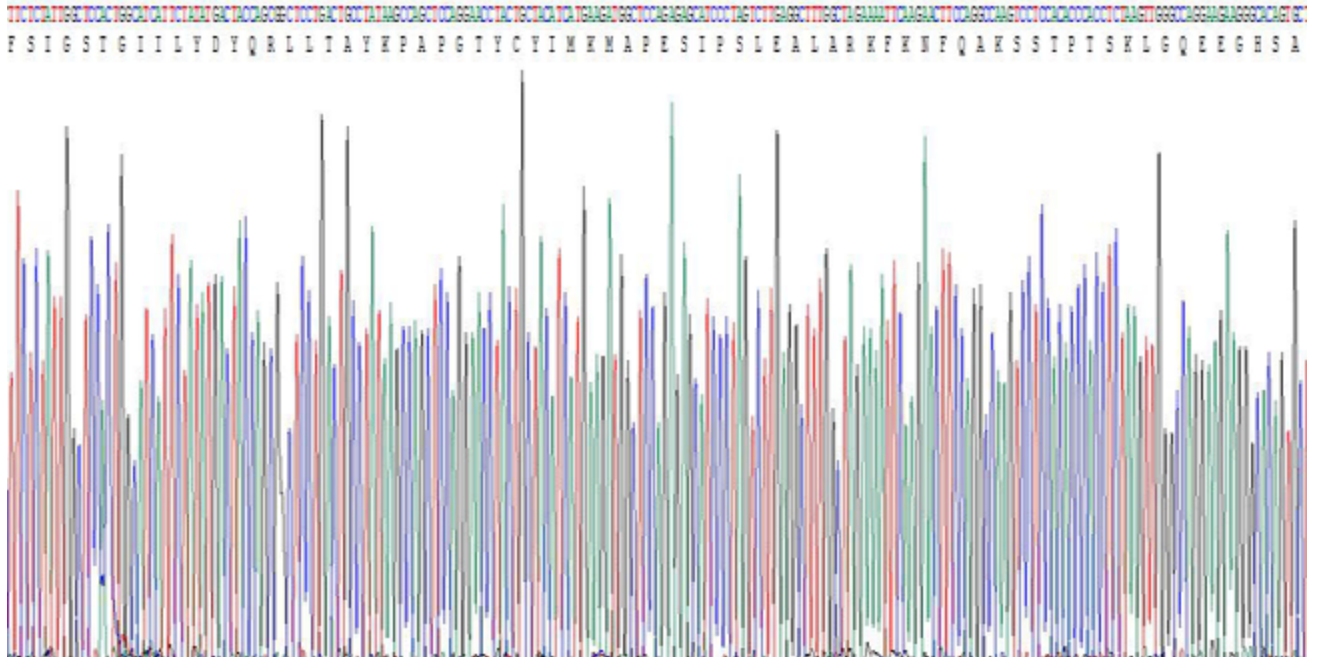
STORAGE

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



SDS-PAGE Image

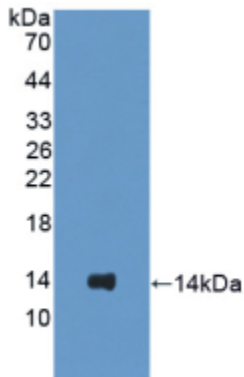


Figure. Western Blot

[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.