

**RPA890Hu02 50µg**  
**Recombinant Surfactant Associated Protein A (SPA)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

---

12th Edition (Revised in Aug, 2016)

## [ **PROPERTIES** ]

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Glu21~Phe248

**Tags:** Two N-terminal Tags, His-tag and GST-tag

**Tissue Specificity:** Lung.

**Subcellular Location:** Secreted, extracellular space, extracellular matrix.

**Purity:** >90%

**Traits:** Freeze-dried powder

**Buffer formulation:** 100mM NaHCO<sub>3</sub>, 500mM NaCl, pH8.3, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5%Trehalose and Proclin300.

**Original Concentration:** 200ug/mL

**Applications:** SDS-PAGE; WB; ELISA; IP; CoIP; Purification; Amine Reactive Labeling.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 5.7

**Predicted Molecular Mass:** 54.2kDa

**Accurate Molecular Mass:** 43kDa as determined by SDS-PAGE reducing conditions.

**Phenomenon explanation:**

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## [ **USAGE** ]

Reconstitute in 100mM NaHCO<sub>3</sub>, 500mM NaCl (pH8.3) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## [ STORAGE AND STABILITY ]

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** 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.

## [ SEQUENCE ]

```
EVKDVCVGSP GIPGTPGSHG LPGRDGRDGL
KGDPPGPPGM GPPGEMPCPP GNDGLPGAPG IPGECGEKGE PGERGPPGLP
AHLDEELQAT LHDFRHQILQ TRGALSLQGS IMTVGEKVFS SNGQSITFDA
IQEACARAGG RIAVPRNPEE NEIASFVKK YNTYAYVGLT EGSPSGDFRY
SDGTPVNYTN WYRGEPARGG KEQCVEMYTD GQWDRNCLY SRLTICEF
```

## [ IDENTIFICATION ]

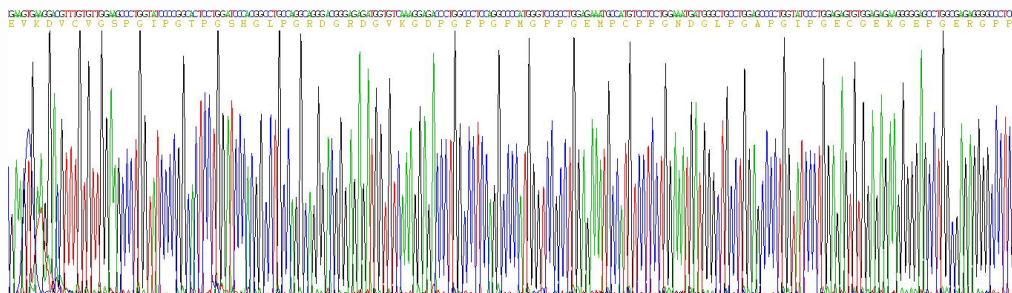
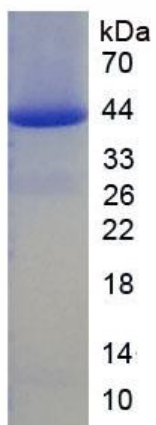


Figure 1. Gene Sequencing (Extract)



**Figure 2. SDS-PAGE**