

**YBB039Ra01 100 $\mu$ g**  
**Recombinant Surfactant Associated Protein D (SPD)**  
**Organism Species: Rattus norvegicus (Rat)**  
***Instruction manual***

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

9th Edition (Revised in Jul, 2013)

## [ PROPERTIES ]

**Residues:** Ala20~Phe374 (Accession # P35248), with N-terminal His-Tag.

**Host:** *E. coli*

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

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1 $\mu$ g (determined by the LAL method).

**Formulation:** Supplied as lyophilized form in PBS, pH7.4, containing 5% sucrose, 0.05% sarcosyl.

**Predicted isoelectric point:** 7.1

**Predicted Molecular Mass:** 37.0kDa

**Accurate Molecular Mass:** 14&44kDa as determined by SDS-PAGE reducing conditions.

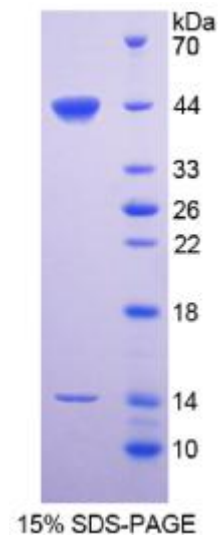
**Applications:** SDS-PAGE; WB; ELISA; IP.

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

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

**Note:**

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.





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## **[ USAGE ]**

Reconstitute in sterile PBS, pH7.2-pH7.4.

## **[ 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 of the target protein. 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. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCES ]**

The target protein is fused with N-terminal His-Tag, its sequence is listed below.

MGHHHHHSGSEF-A EMKTLNQRSI TNTCTLVLCSTENGLPGRD GRDGREGPRG  
EK G D P G L P G P M G L S G L P G P R G P V G P K G E N G S A G E P G P K G E R G L V G P P G S P  
G I S G P A G K E G P S G K Q G N I G P Q G K P G P K G E A G P K G E V G A P G M Q G S A G A K G P  
A G P K G E R G A P G E Q G A P G N A G A A G P A G P A G P Q G A P G S R G P P G L K G D R G A P G  
DRGIKGESGL PDSAALRQQM EALNGKLQRL EAAFSRYKKA ALFPDQGSVG DKIFRAANSE  
EPFEDAKEMC RQAGGQLASP RSATENA AVQ QLVTAHSKAA FLSMTDVGTE GKFTYPTGEA  
LVYSNWAPGE PNNNGGAENC VEIFTNGQWN DKACGEQRLV ICEF

## **[ REFERENCES ]**

1. King B.A., Kingma P.S. (2011) Am. J. Respir. Cell Mol. Biol. 44:709-715.
2. Yamashita H., *et al.* (2010) Radiat Oncol 5:32-32.
3. Foreman M.G., *et al.* (2011) Am. J. Respir. Cell Mol. Biol. 44:316-322.
4. Stapleton R.D., *et al.* (2010) Chest 138:568-577.