

Surfactant Associated Protein C (SPC) Active Protein | SPC active protein

Active Surfactant Associated Protein C (SPC)

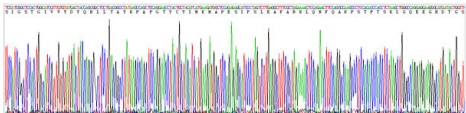
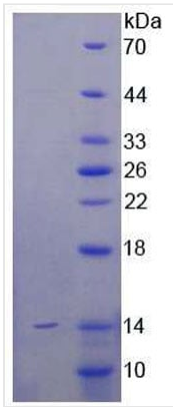
CATALOG # AAA149247	HOST E. coli	REACTIVITY Mus musculus (Mouse)	APPLICATIONS Activity Assay, Cell Culture
-------------------------------	------------------------	---	---

PRODUCT SYNONYMS

Surfactant Associated Protein C (SPC); Active Surfactant Associated Protein C (SPC); SFTPC; PSP-C; SFTP2; SP-C; SP5; Pulmonary Surfactant Protein C; Pulmonary surfactant-associated proteolipid SPL(Val); SPC active protein

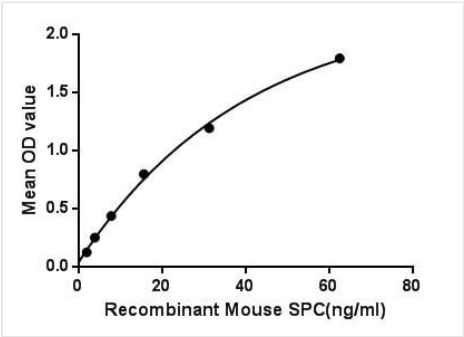
PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Mus musculus (Mouse)
Purity/Purification	>98%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA 0.01% SKL, 5% Trehalose.
Concentration	Original Concentration: 200ug/mL (varies by lot)
Applicable Applications for SPC active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Phe94~Ile193
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.4
Usage	Reconstitute in ddH2O to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree 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 degree 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.



Gene Sequencing
Figure 2. Gene Sequencing (extract)

SDS_PAGE
Figure 3. SDS-PAGESample: Active recombinant SPC, Mouse



Sequence

FSIGSTG
IVVVDYQRLL TAYKPAPGTY CYIMKMAPES IPSLEAFARK LQNFRAPST
PTSKLGQEEG HDTGSESDSS GRDLAFLGLA VSTLCGELPL YYI

Bioactivity
Figure. The binding activity of SPC with EIF2aK3. Surfactant associated proteins (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, Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3) has been identified as an interactor of SPC, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse SPC and recombinant mouse EIF2aK3. Briefly, SPC were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to EIF2aK3-coated microtiter wells and incubated for 2h at 37 degree 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 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of SPC and EIF2aK3 was shown in Figure 1, and this effect was in a dose dependent manner. Figure 1. The binding activity of SPC with EIF2aK3.

ADDITIONAL INFORMATION

Product Categories/Family for SPC active protein	Tumor immunity; Infection immunity; Pulmonology
--	---

NCBI AND UNIPROT INFORMATION

NCBI GI #	256355065
NCBI GeneID	20389
NCBI Accession #	NP_035489.2
NCBI GenBank Nucleotide #	NM_011359.2
UniProt Accession #	P21841

Molecular Weight	Predicted Molecular Mass: 12.1kDa Accurate Molecular Mass: 14kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	pulmonary surfactant-associated protein C
NCBI Official Synonym Full Names	surfactant associated protein C
NCBI Official Symbol	Sftpc
NCBI Official Synonym Symbols	SP5; SPC; SP-C; Sftp2; Bricd6; Sftp-2; pro-SpC
NCBI Protein Information	pulmonary surfactant-associated protein C
UniProt Protein Name	Pulmonary surfactant-associated protein C
UniProt Gene Name	Sftpc
UniProt Synonym Gene Names	Sftp2; SP-C
UniProt Entry Name	PSPC_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/e-coli-mouse-mus-musculus-active-protein/surfactant-associated-protein-c-spc/149247>