

PRODUCT INFORMATION

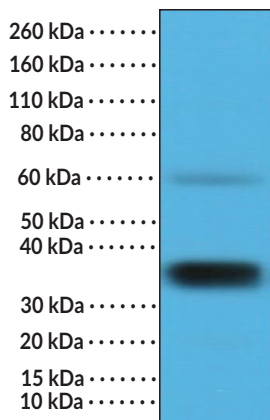
Surfactant Protein A (C-Term) Rabbit Monoclonal Antibody (Clone RM334)

Item No. 32271

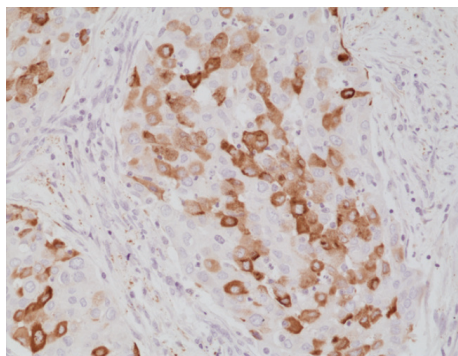
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonym:	SP-A
Immunogen:	Peptide from the C-terminal region of human surfactant protein A
Cross Reactivity:	(+) Surfactant protein A
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM334
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of human lung tissue lysate using Surfactant Protein A (C-Term) Rabbit Monoclonal Antibody (Clone RM334) at a 1:10,000 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human lung cancer tissue using Surfactant Protein A (C-Term) Rabbit Monoclonal Antibody (Clone RM334) at a 1:1,000 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Surfactant protein A (SP-A) is a hydrophilic surfactant protein and member of the collectin family with roles in microbial and apoptotic cell phagocytosis, as well as the regulation of cytokine expression.¹⁻⁴ It is composed of an N-terminal cysteine-rich domain that facilitates crosslinking of SP-A monomers, a collagen-like domain that induces multimerization, and a C-terminal carbohydrate recognition domain (CRD) for pathogen recognition. SP-A is expressed primarily in pulmonary surfactant but is also expressed in the brain, kidney, and female reproductive tract.⁴ It functions as an octadecamer that binds bacterial, fungal, and viral pathogens to enhance opsonized phagocytosis. SP-A interacts with toll-like receptors to modulate the production of various cytokines and inflammatory mediators in response to infection.¹⁻⁴ Serum levels of SP-A are associated with early relapse or exacerbation in patients with chronic obstructive pulmonary disease (COPD).⁴ Cayman's Surfactant Protein A (C-Term) Rabbit Monoclonal Antibody (Clone RM334) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Wright, J.R. Immunoregulatory functions of surfactant proteins. *Nat. Rev. Immunol.* **5(1)**, 58-68 (2005).
2. Nayak, A., Dodagatta-Marri, E., Tsolaski, A.G., *et al.* An insight into the diverse roles of surfactant proteins, SP-A and SP-D in innate and adaptive immunity. *Front Immunol.* **3**, 131 (2012).
3. Watson, A., Phipps, M.J.S., Clark, H.W., *et al.* Surfactant proteins A and D: Trimerized innate immunity proteins with an affinity for viral fusion proteins. *J. Innate Immun.* **11(1)**, 13-28 (2019).
4. King, S.D. and Chen, S.-Y. Recent progress on surfactant protein A: cellular function in lung and kidney disease development. *Am. J. Physiol. Cell Physiol.* **319(2)**, C316-C320 (2020).

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