

Datasheet for ABIN968262
anti-SRP54 antibody (AA 262-476)[Go to Product page](#)

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Overview

Quantity:	50 µg
Target:	SRP54
Binding Specificity:	AA 262-476
Reactivity:	Human, Mouse, Rat, Dog, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SRP54 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human SRP54 aa. 262-476
Clone:	30-SRP54
Isotype:	IgG1
Cross-Reactivity:	Dog (Canine), Rat (Rattus), Mouse (Murine), Frog
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	SRP54
Alternative Name:	SRP54 (SRP54 Products)
Background:	<p>Ribosomes that exist freely in the cytosol or those attached to the ER are intrinsically the same in their translational properties. ER-bound ribosomes are responsible for the production of secretory proteins and integral ER, Golgi, lysosomal, and plasma membrane spanning proteins. Such proteins contain signal sequences that direct their synthesis to the ER membrane. As the nascent polypeptide emerges from the ribosome, a signal recognition particle (SRP) binds to the signal sequence and serves to couple the ribosome to the protein-translocating machinery in the ER membrane. Although the SRP is a 325 kDa ribonucleoprotein, its 54 kDa subunit (SRP54) mediates interaction with, and targeting of, the nascent protein to the ER. Via its C-terminal M-domain, SRP54 associates with the nascent protein and inhibits its elongation. This complex binds to the SRP receptor on the ER, the ribosome is delivered to the translocation machinery, SRP is released, and elongation resumes. Targeting and insertion are tightly coupled to a GTPase cycle that involves SRP54 and SRP receptor. Although the mechanisms are unclear, release of SRP from the ER-bound complex requires GTP hydrolysis.</p>
Molecular Weight:	54 kDa
Pathways:	SARS-CoV-2 Protein Interactome

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

should be handled by trained staff only.

Storage: -20 °C

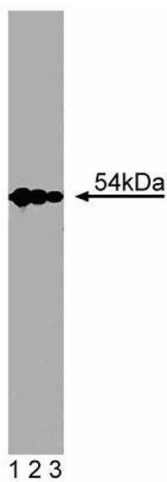
Storage Comment: Store undiluted at -20° C.

Publications

Product cited in: Rapiejko, Gilmore: "Empty site forms of the SRP54 and SR alpha GTPases mediate targeting of ribosome-nascent chain complexes to the endoplasmic reticulum." in: **Cell**, Vol. 89, Issue 5, pp. 703-13, (1997) ([PubMed](#)).

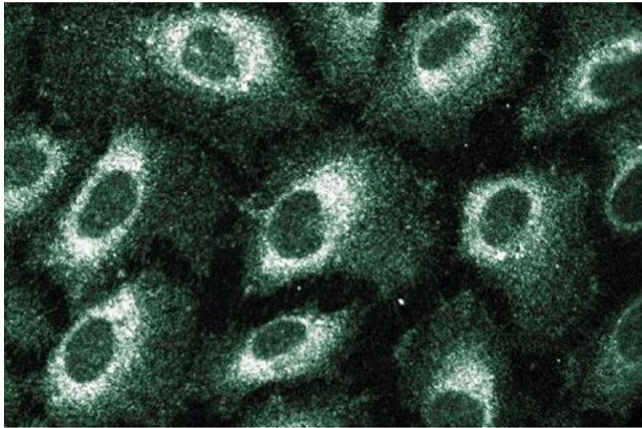
Traianedes, Findlay, Martin, Gillespie: "Modulation of the signal recognition particle 54-kDa subunit (SRP54) in rat preosteoblasts by the extracellular matrix." in: **The Journal of biological chemistry**, Vol. 270, Issue 36, pp. 20891-4, (1995) ([PubMed](#)).

Images



Western Blotting

Image 1. Western blot analysis of SRP54 on Jurkat cell lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-SRP54.



Immunofluorescence

Image 2. Immunofluorescent staining of Human Endothelial cells with anti-SRP54.