abcam

ab204028

# Alexa Fluor® 647 Anti-S100 alpha 6/PRA antibody [EPNCIR121]

Recombinant | RabMAb

## Key facts

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|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Conjugation** | Alexa Fluor® 647 |
| **Excitation/Emission** | Ex: 650nm, Em: 665nm |
| **Storage buffer** | pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPNCIR121 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.5 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Flow Cyt (Intra)

### Expected

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Target data

See full target information S100A6

**Function** May function as calcium sensor and modulator, contributing to cellular calcium signaling. May function by interacting with other proteins, such as TPR-containing proteins, and indirectly play a role in many physiological processes such as the reorganization of the actin cytoskeleton and in cell motility. Binds 2 calcium ions. Calcium binding is cooperative. (Microbial infection) Facilitates attachment and invasion of Toxoplasma gondii parasites.

## Storage

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| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |

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| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Stable for 12 months at -20°C, Store in the dark |

## Notes

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

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| **Activity summary** | S100 alpha 6 also known as PRA is a member of the S100 protein family characterized by its small molecular weight of approximately 10 kDa. This protein expresses in various tissues including the heart skeletal muscle kidney and brain. The S100 family proteins commonly contain two EF-hand calcium-binding motifs which play key roles in intracellular and extracellular regulatory activities. S100 alpha 6 participates in calcium-dependent signal transduction processes that affect a range of cellular functions. |
| **Biological function summary** | S100 alpha 6 plays a significant role in intracellular calcium signaling and cytoskeletal dynamics. This protein often interacts as a part of protein complexes with various other proteins including annexin and tropomyosin contributing to vital cellular functions like contraction motility and cell cycle regulation. Its expression levels and spatial distribution influence cellular proliferation and differentiation making it an important component in several cell types. |
| **Pathways** | The protein S100 alpha 6 participates in essential pathways such as the MAPK and calcium signaling pathways. In the MAPK pathway S100 alpha 6 interacts with proteins like ERK1/2 influencing cell growth and apoptosis signaling cascades. In calcium signaling it helps regulate the release and uptake of calcium ions vital for maintaining cellular homeostasis and function. Through these pathways S100 alpha 6 is interconnected with other proteins like calmodulin and calcyclin which share similar physiological roles. |

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|---|---|
| **Associated diseases and disorders** | Increased or decreased expression of S100 alpha 6 relates to conditions such as cancer and cardiomyopathy. In cancer S100 alpha 6 often associates with dysregulated cell growth and can influence tumor progression through its interactions with proteins such as p53 and MDM2. In cardiomyopathy it affects calcium-handling properties in heart muscle cells linking it to cardiac dysfunction. These associations highlight its impact on disease development and progression making it a target for research in therapeutic strategies. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

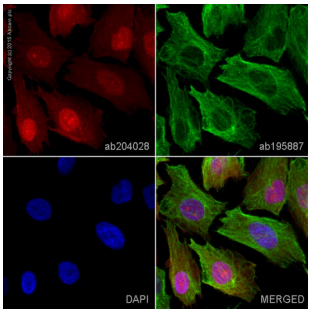
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

## 1 product image




### Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-S100 alpha 6/PRA antibody [EPNCIR121] (ab204028)

S100 alpha 6/PRA Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-S100 alpha 6/PRA antibody

ab204028 staining S100 alpha 6/PRA in SKNSH cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab204028 at 1/100 dilution (shown in red) and ab195887, Mouse

monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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