

SIPA1 Antibody

Catalog # ASC11423

Specification

SIPA1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IF, E <u>Q96FS4</u> <u>AAH10492</u>, <u>206725523</u> Human Rabbit Polyclonal IgG SIPA1 antibody can be used for detection of EPAC1 by Western blot at 1 μg/mL. Antibody can also be used for immunofluorescence starting at 20 μg/mL. For immunofluorescence start at 20 μg/mL.

SIPA1 Antibody - Additional Information

Gene ID

6494

Target/Specificity

SIPA1; At least three isoforms of SIPA1 are known to exist; this antibody will recognize all three isoforms. This antibody is specific for SIPA1 and will not recognize the other SIPA1 family of proteins.

Reconstitution & Storage

SIPA1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

SIPA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SIPA1 Antibody - Protein Information

Name SIPA1

Synonyms SPA1

Function

GTPase activator for the nuclear Ras-related regulatory proteins Rap1 and Rap2 in vitro, converting them to the putatively inactive GDP-bound state (PubMed:9346962). Affects cell cycle progression (By similarity).

Cellular Location

Nucleus. Cytoplasm, perinuclear region. Endomembrane system; Peripheral membrane protein.



Note=Mostly localized in the perinuclear membraneous region

Tissue Location

Expressed in fetal as well as in adult tissues. Expressed abundantly in the lymphoid tissues such as thymus, spleen and peripheral blood lymphocytes and also shows a significant expression in the spinal cord

SIPA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SIPA1 Antibody - Images



Western blot analysis of SIPA1 in human brain tissue lysate with SIPA1 antibody at 1 µg/mL.





Immunofluorescence of SIPA1 in human brain cells with SIPA1 antibody at 20 μ g/mL.

SIPA1 Antibody - Background

SIPA1 Antibody: Signal-induced proliferation 1 (SIPA1) is a member of the SIPA1 family of RapGAPs, a family of mitogen-induced GTPase activating proteins. SIPA1 exhibits a specific GAP activity for Ras-related regulatory proteins Rap1 and Rap2, but not for Ran or other small GTPases. When abnormally or prematurely expressed, SIPA1 may also hamper mitogen-induced cell cycle progression and may increase metastases in human cancers.

SIPA1 Antibody - References

Hattori M, Tsukamoto N, Nur-e-Kamal MS, et al. Molecular cloning of a novel mitogen-inducible nuclear protein with a Ran GTPase-activating domain that affects cell cycle progression. Mol. Cell. Biol. 1995; 15:551-60.

Minato N and Hattori M. SPA-1 (Sipa1) and Rap signaling in leukemia and cancer metastasis. Cancer Sci. 2009; 100:17-23.

Kurachi H, Wada Y, Tsukamoto N, et al. Human SPA-1 gene product selectively expressed in lymphoid tissues is a specific GTPase-activating protein for Rap1 and Rap2. Segregate expression profiles from a rap1GAP gene product. J. Biol. Chem. 1997; 272:28081-8.

Ishida D, Kometani K, Yang H, et al. Myeloproliferative stem cell disorders by deregulated Rap1 activation in SPA-1-deficient mice. Cancer Cell 2003; 4:55-65.