10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SPIRE1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17465b

Product Information

Application	WB, E
Primary Accession	Q08AE8
Other Accession	Q52KF3, Q4R707, NP_001122099.1, NP_001122098.1
Reactivity	Human
Predicted	Monkey, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37469
Calculated MW	85544
Antigen Region	665-691

Additional Information

Gene ID	56907
Other Names	Protein spire homolog 1, Spir-1, SPIRE1 {ECO:0000312|EMBL:AAI252071}, KIAA1135, SPIR1
Target/Specificity	This SPIRE1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 665-691 amino acids from the C-terminal region of human SPIRE1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SPIRE1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SPIRE1 {ECO:0000312|EMBL:AAI25207.1}
Synonyms	KIAA1135, SPIR1

Function	Acts as an actin nucleation factor, remains associated with the slow-growing pointed end of the new filament (PubMed:11747823, PubMed:21620703). Involved in intracellular vesicle transport along actin fibers, providing a novel link between actin cytoskeleton dynamics and intracellular transport (PubMed:11747823). Required for asymmetric spindle positioning and asymmetric cell division during meiosis (PubMed:21620703). Required for normal formation of the cleavage furrow and for polar body extrusion during female germ cell meiosis (PubMed:21620703). Also acts in the nucleus: together with FMN2, promotes assembly of nuclear actin filaments in response to DNA damage in order to facilitate movement of chromatin and repair factors after DNA damage (PubMed:26287480). In addition, promotes innate immune signaling downstream of dsRNA sensing (PubMed:35148361). Mechanistically, contributes to IRF3 phosphorylation and activation downstream of MAVS and upstream of TBK1 (PubMed:35148361).
Cellular Location	Cytoplasm, cytoskeleton. Cytoplasm, perinuclear region. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q52KF3}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q52KF3}; Cytoplasmic side {ECO:0000250|UniProtKB:Q52KF3}. Note=Detected at the cleavage furrow during asymmetric oocyte division and polar body extrusion (By similarity). Punctate spots in perinuclear region and cytoplasm, colocalized with Rab11 (By similarity). {ECO:0000250|UniProtKB:Q52KF3}

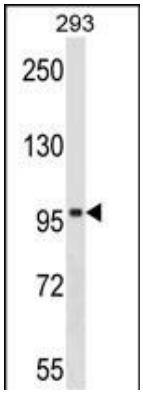
Background

Spire proteins, such as SPIRE1, are highly conserved between species. They belong to the family of Wiskott-Aldrich homology region-2 (WH2) proteins, which are involved in actin organization (Kerkhoff et al., 2001 [PubMed 11747823]).[supplied by OMIM].

References

Rose, J. Phd, et al. Mol. Med. (2010) In press :
Pechlivanis, M., et al. J. Biol. Chem. 284(37):25324-25333(2009)
Bosch, M., et al. Mol. Cell 28(4):555-568(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Kerkhoff, E., et al. Curr. Biol. 11(24):1963-1968(2001)

Images



SPIRE1 Antibody (C-term) (Cat. #AP17465b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the SPIRE1 antibody detected the SPIRE1 protein (arrow).