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

HOOK1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54811

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9UJC3
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	84648
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from Human HOOK1
Epitope Specificity	551-650/728
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton. Cytoplasm. Note=Localizes to the spermatid manchette during spermiogenesis but is not present in mature spermatozoa. Localizes to punctate cytoplasmic foci which do not appear to overlap with early or late endosomes, the endoplasmic reticulum, the Golgi complex, multivesicular bodies (MVBs), lysosomes, or mitochondria. Often found in close association with microtubules.
SIMILARITY	Belongs to the hook family.
SUBUNIT	Self-associates. Component of the FTS/Hook/FHIP complex (FHF complex), composed of AKTIP/FTS, FAM160A2, and one or more members of the Hook family of proteins HOOK1, HOOK2, and HOOK3. May interact directly with AKTIP/FTS, HOOK2 and HOOK3. Associates with several subunits of the homotypic vesicular sorting complex (the HOPS complex) including VPS16, VPS18, VPS39 and VPS41; these interactions may be indirect. Interacts with microtubules.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Microtubules mediate the spatial organization of diverse membrane-trafficking systems. The HOOK proteins, HOOK1, HOOK2 and HOOK3, comprise a family of cytosolic coiled-coil proteins that contain conserved N-terminal domains, which attach to microtubules; and more divergent C-terminal domains, which mediate binding to organelles. HOOK1, a cytoskeletal linker protein, may play a role in endocytic membrane trafficking. It exists as a homodimer, most likely mediated through its central coiled-coil domain. HOOK1 interacts with VPS18 and is required for spermatid differentiation, in which it is most likely involved in the positioning of the manchette microtubules and the flagellum. HOOK1 localizes primarily to the cytoplasm and does not associate with the Golgi complex, unlike HOOK3, which participates in the organization of the cis-Golgi compartment.

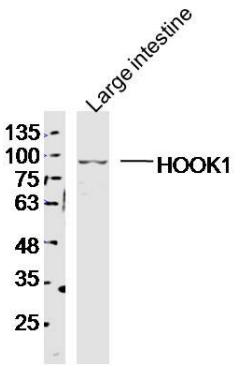
Additional Information

Gene ID	51361
Other Names	Protein Hook homolog 1, h-hook1, hHK1, HOOK1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	HOOK1 (HGNC:19884)
Function	Component of the FTS/Hook/FHIP complex (FHF complex) (PubMed:18799622, PubMed:32073997). The FHF complex may function to promote vesicle trafficking and/or fusion via the homotypic vesicular protein sorting complex (the HOPS complex) (PubMed:18799622). FHF complex promotes the distribution of AP-4 complex to the perinuclear area of the cell (PubMed:32073997). Required for spermatid differentiation. Probably involved in the positioning of the microtubules of the manchette and the flagellum in relation to the membrane skeleton (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Note=Localizes to punctate cytoplasmic foci which do not appear to overlap with early or late endosomes, the endoplasmic reticulum, multivesicular bodies (MVBs), lysosomes, or mitochondria (By similarity). Often found in close association with microtubules (By similarity). Does not associate with the Golgi complex. During spermiogenesis, it localizes to the manchette in spermatids from steps 8-10. It is also present between the microtubule manchette and the nucleus. During manchette elongation, it is preferentially localized to the nuclear ring of the manchette, whereas the strong localization to the manchette decreases. In more mature spermatids, while the manchette migrates posteriorly, it localizes to punctuates spots. At later stages of spermatid differentiation, the punctuate expression pattern is found at both the attachment site and the proximal end of the elongated manchette. In contrast, it is not present in mature spermatozoa (By similarity) {ECO:0000250|UniProtKB:Q8BIL5}

Images



Sample: Large intestine (Mouse) Lysate at 40 ug
Primary: Anti-HOOK1 (AP54811) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 85 kD
Observed band size: 85 kD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.