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HOOK3 Antibody
Catalog # ASC11964

Specification

HOOK3 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q86VS8
Other Accession	NP_115786, 84376
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 79 kDa** **Observed: 77 kDa KDa**
Application Notes	**HOOK3 antibody can be used for the detection of HOOK3 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry at 10 µg/ml.**

HOOK3 Antibody - Additional Information

Gene ID **84376**

Target/Specificity
HOOK3 antibody was raised against a 19 amino acid peptide from near the amino terminus of human HOOK3.

The immunogen is located within amino acids 210 - 260 of HOOK3.

Reconstitution & Storage
HOOK3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
HOOK3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HOOK3 Antibody - Protein Information

Name HOOK3 (HGNC:23576)

Function
Acts as an adapter protein linking the dynein motor complex to various cargos and converts dynein from a non-processive to a highly processive motor in the presence of dynactin. Facilitates the interaction between dynein and dynactin and activates dynein processivity (the ability to move along a microtubule for a long distance without falling off the track). Predominantly recruits 2 dyneins, which increases both the force and speed of the microtubule motor (PubMed:25035494, PubMed:33734450). Component of the FTS/Hook/FHIP complex (FHF complex). The FHF complex may function to promote vesicle trafficking and/or fusion via the homotypic vesicular protein sorting complex (the HOPS complex). May regulate clearance of endocytosed receptors such as MSR1. Participates in defining the

architecture and localization of the Golgi complex. FHF complex promotes the distribution of AP-4 complex to the perinuclear area of the cell (PubMed:32073997).

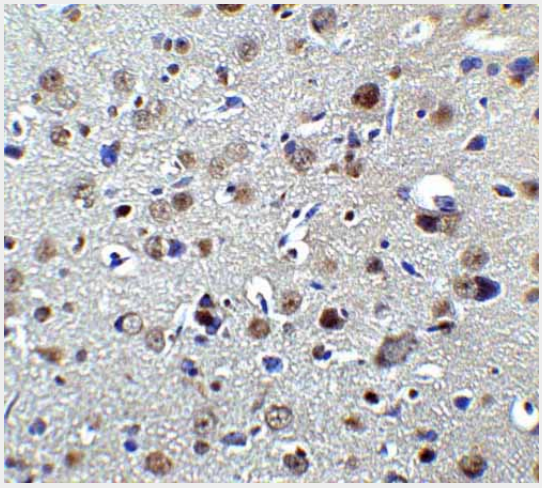
Cellular Location
Cytoplasm, cytoskeleton. Golgi apparatus. Note=Enriched at the cis-face of the Golgi complex. Localizes to microtubule asters in prophase (PubMed:11238449). Localizes to the manchette in elongating spermatids (By similarity). {ECO:0000250|UniProtKB:Q8BUK6, ECO:0000269|PubMed:11238449}

HOOK3 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HOOK3 Antibody - Images



Immunohistochemistry of PLAGL2 in rat brain tissue with PLAGL2 antibody at 2 µg/ml.

HOOK3 Antibody - Background

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 mediating the spatial organization of diverse membrane-trafficking systems; their more divergent C-terminal domains mediate binding to organelles (1,2). HOOK3 exists as a homodimer and participates in defining the architecture and localization of the Golgi complex through its central coiled-coil domain (3). HOOK3 may regulate clearance of endocytosed receptors such as MSR1 (3,4).

HOOK3 Antibody - References

Walenta JH, Didier AJ, Liu X, et al. The Golgi-associated hook3 protein is a member of a novel family

of microtubule-binding proteins. J. Cell Biol. 2001; 152:923-34.
Sano H, Ishino M, Krämer H, et al. The microtubule-binding protein Hook3 interacts with a cytoplasmic domain of scavenger receptor A. J. Biol. Chem. 2007; 282:7973-81.
Herrmann L, Wiegmann C, Arsalan-Werner A, et al. Hook proteins: association with Alzheimer pathology and regulatory role of hook3 in amyloid beta generation. PLoS One 2015; 10:e0119423.
Ciampi R, Giordano TJ, Wikenheiser-Brokamp K, et al. HOOK3-RET: a novel type of RET/PTC rearrangement in papillary thyroid carcinoma. Endocr. Relat. Cancer 2007; 14:445-52.