

IQCG Rabbit pAb

Catalog # AP96343

Product Information

Application	WB
Primary Accession	Q9H095
Other Accession	Q9H095
Reactivity	Human
Predicted	Rat, Pig, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51918
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human IQCG
Epitope Specificity	301-400/443
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 IQ domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	<p>IQCG is a 443 amino acid protein containing one IQ domain. Widely distributed in nature, the IQ domain forms an amphiphilic seven-turn α-helix capable of binding calmodulin in a Ca^{2+}-independent manner. The level of intracellular calcium is tightly regulated in all eukaryotic cells. A modest increase in this level can result in a myriad of physiological responses, most of which are mediated by calmodulin (CaM), the universal calcium sensor. In acute T-lymphoid/myeloid leukemia, IQCG forms a complex with Nup98, an O-linked glycoprotein and a component of the nuclear pore complex. NUP98-IQCG complex bind co-activators and/or co-repressors, which suggest a role in transcriptional regulation. Nup98-IQCG complex inhibits 32Dcl3 cell apoptosis induced by Arabinofuranosylcytosine (Ara-C) and partially blocks granulocyte differentiation induced by G-CSF. IQCG exists as two isoforms due to alternatively splicing events.</p>

Additional Information

Gene ID	84223
Other Names	CFAP122; IQCG; DRC9_HUMAN; IQ domain-containing protein G; DRC9;
Dilution	WB=1:500-2000
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	DRC9 (HGNC:25251)
Synonyms	IQCG
Function	Component of the nexin-dynein regulatory complex (N-DRC), a key regulator of ciliary/flagellar motility which maintains the alignment and integrity of the distal axoneme and regulates microtubule sliding in motile axonemes. Binds calmodulin when cellular Ca(2+) levels are low and thereby contributes to the regulation of calcium and calmodulin-dependent protein kinase IV (CAMK4) activity; contributes to the regulation of CAMK4 signaling cascades. Required for normal axoneme assembly in sperm flagella, normal sperm tail formation and for male fertility.
Cellular Location	Cytoplasm. Cell projection, cilium, flagellum {ECO:0000250 UniProtKB:Q80W32}. Cell projection, cilium {ECO:0000250 UniProtKB:Q80W32}. Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:Q80W32}. Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250 UniProtKB:A8HQ54}. Note=First detected in the cytoplasm of pachytene spermatocytes. Colocalizes with alpha- tubulin at the manchette in developing spermatids. Detected in the flagellum of mature testicular spermatozoa, and in the flagellum and post-acrosomal region of the head of epididymal spermatozoa. Detected in cilia in trachea and oviduct. {ECO:0000250 UniProtKB:Q80W32}

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