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DZIP1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8926c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q86YF9
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23724
Calculated MW	98664
Antigen Region	568-596

Additional Information

Gene ID	22873
Other Names	Zinc finger protein DZIP1, DAZ-interacting protein 1/2, DZIP1, DZIP, DZIP2, KIAA0996
Target/Specificity	This DZIP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 568-596 amino acids from the Central region of human DZIP1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	DZIP1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DZIP1 (HGNC:20908)
Synonyms	DZIP, DZIP2, KIAA0996
Function	Molecular adapter that recruits protein complexes required for cilium

	assembly and function to the cilium basal body (PubMed:19852954, PubMed:23955340, PubMed:27979967, PubMed:32051257). At the exit of mitosis, localizes to the basal body and ciliary base of the forming primary cilium where it recruits and activates RAB8A to direct vesicle-mediated transport of proteins to the cilium (By similarity). Also recruits the BBSome, a complex involved in cilium biogenesis, by bridging it to PCM1 at the centriolar satellites of the cilium (PubMed:27979967). It is also required for the recruitment to the cilium basal body of the intraflagellar transport (IFT) machinery as well as the ciliary appendage proteins CEP164 and NINEIN (By similarity). Functions as a regulator of Hedgehog signaling both through its role in cilium assembly but also probably through its ability to retain GLI3 within the cytoplasm (By similarity). It is involved in spermatogenesis through its role in organization of the basal body and assembly of the sperm flagellum (PubMed:32051257). Also indirectly involved in heart development through its function in ciliogenesis (PubMed:31118289).
Cellular Location	Cytoplasm, cytoskeleton, cilium basal body. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriolar satellite. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole Nucleus. Nucleus speckle {ECO:0000250|UniProtKB:Q8BMD2}. Cytoplasm. Note=Localizes to the centriole in cells lacking cilia and to the cilium basal body in ciliated cells (PubMed:19852954). At the exit of mitosis, when the primary cilium is reassembled in daughter cells, localizes at the mother centriole that acts as the basal body of the assembling primary cilium and also accumulates at the ciliary base that constitutes a diffusion barrier for ciliary proteins (By similarity). {ECO:0000250|UniProtKB:Q8BMD2, ECO:0000269|PubMed:19852954}
Tissue Location	Predominantly expressed in testis (at protein level) (PubMed:15081113, PubMed:32051257). Also expressed in fetal brain, adult oocytes and ovary (PubMed:15081113). Expressed in undifferentiated ES cells (PubMed:15081113). In testis, it is specifically expressed in germ cells (at protein level) (PubMed:15081113, PubMed:32051257). Expressed in mature germ cells and secondary spermatocytes, while it is weakly or not expressed in primary spermatocytes (PubMed:15081113).

Background

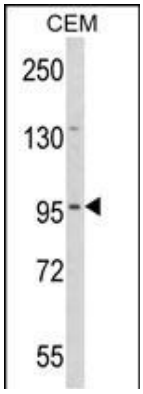
DZIP1 may participate in spermatogenesis via its interaction with DAZ. Isoform 1 and isoform 2 interact with DAZ proteins. DZIP1 may also participate in a RNA-binding complex that functions in both ES cells and germ cells. There are three named isoforms.

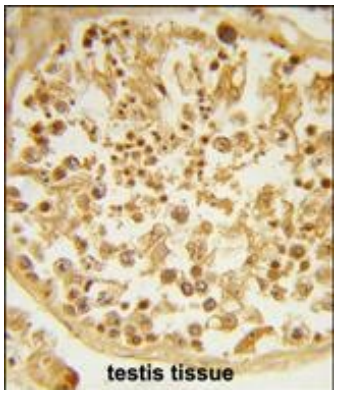
References

Moore,F.L.,et.al., Genomics 83 (5), 834-843 (2004)

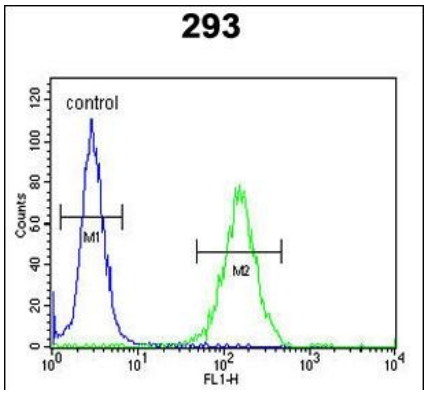
Images

Western blot analysis of DZIP1 Antibody (Center) (Cat. #AP8926c) in CEM cell line lysates (35ug/lane). DZIP1 (arrow) was detected using the purified Pab.





Formalin-fixed and paraffin-embedded human testis tissue reacted with DZIP1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



DZIP1 Antibody (Center) (Cat. #AP8926c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Homozygous mutations in can induce asthenoteratospermia with severe MMAF
- GSK3β-Dzip1-Rab8 Cascade Regulates Ciliogenesis after Mitosis.
- DAZ interacting protein 1 (Dzip1) phosphorylation by Polo-like kinase 1 (Plk1) regulates the centriolar satellites localization of the BBSome during the cell cycle.