

CATSPER4 Rabbit pAb

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Catalog # AP58443

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q7RTX7
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54092
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CATSPER4
Epitope Specificity	101-200/472
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	Cell projection, cilium, flagellum membrane; Multi-pass membrane protein. Note=Specifically located in the principal piece of sperm tail.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CatSper (cation channel, sperm associated proteins) are ion transport proteins located on the surface of sperm cells in the principal piece of the sperm tail. CatSper are vital to sperm motility, fertilization and cAMP-mediated calcium influx in sperm. There are four CatSper proteins in mammalian sperm, namely CatSper (or CatSper1), CatSper2, CatSper3 and CatSper4. CatSper proteins contain a single, six-transmembrane-spanning segment and exhibit the voltage-dependent Ca ²⁺ channel four-repeat structure. CatSper proteins are believed to assemble into a heterotetrameric complex, forming an alkalization-activated Ca ²⁺ -selective channel. Mutations in any of the genes encoding CatSper family proteins can result in male infertility. CatSper3 plays an important role in the hyperactivated motility of sperm cells, a process that is required in the preparation of sperm for fertilization.

Additional Information

Gene ID	378807
Other Names	Cation channel sperm-associated protein 4, CatSper4, CATSPER4
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=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	CATSPER4
Function	Pore-forming subunit of the CatSper complex, a sperm-specific voltage-gated calcium channel that plays a central role in calcium- dependent physiological responses essential for successful fertilization, such as sperm hyperactivation, acrosome reaction and chemotaxis towards the oocyte.
Cellular Location	Cell projection, cilium, flagellum membrane {ECO:0000250 UniProtKB:Q8BVN3}; Multi-pass membrane protein {ECO:0000250 UniProtKB:Q8BVN3}. Note=Specifically located in the principal piece of the sperm tail. {ECO:0000250 UniProtKB:Q8BVN3}
Tissue Location	Testis-specific.

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