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TSSK6 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59367

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9BXA6
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30331
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TSSK6/CT72
Epitope Specificity	1-100/273
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. Contains 1 protein kinase domain.
SUBUNIT	Interacts with the heatshock proteins HSPCB, HSPA8 and HSPA1A. These interactions appear to be required for TSSK6 kinase activity. Interacts with TSACC; this interaction is direct and recruits TSACC to HSP90, which is essential for kinase activity.
Post-translational modifications	Autophosphorylated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. TSSK 6 (testis-specific serine kinase 6), also known as SSTK, TSSK4, FKSG82 or CT72, is a 273 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Highly expressed in testis with lower expression in ovary, colon, thymus, small intestine and spleen, TSSK 6 catalyzes the ATP-dependent phosphorylation of proteins involved in sperm production and chromatin remodeling. TSSK 6 uses magnesium as a cofactor and is thought to be required for proper sperm development and function, as well as DNA condensation events. Defects in the gene encoding TSSK 6 are associated with male infertility characterized by low sperm count and decreased sperm motility.

Additional Information

Gene ID	83983

Other Names	Testis-specific serine/threonine-protein kinase 6, TSK-6, TSSK-6, Testis-specific kinase 6, 2.7.11.1, Cancer/testis antigen 72, CT72, Serine/threonine-protein kinase SSTK, Small serine/threonine kinase, TSSK6 {ECO:0000312|EMBL:AAH14611.1}
Target/Specificity	Highly expressed in testis. Expressed at lower levels in colon, small intestine, ovary, prostate, thymus, spleen and peripheral blood leukocytes.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	TSSK6 {ECO:0000312|EMBL:AAH14611.1}
Function	Serine/threonine-protein kinase component of the sperm flagellar doublet microtubules (PubMed:15870294). May act as a regulator of sperm motility by mediating phosphorylation of sperm doublet microtubule proteins (By similarity). Plays a role in DNA condensation during postmeiotic chromatin remodeling and histone-to- protamine transition during spermatogenesis (By similarity).
Cellular Location	Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250|UniProtKB:Q925K9}. Nucleus {ECO:0000250|UniProtKB:Q925K9} Note=Component of the sperm flagellar doublet microtubules. Also localizes in the nucleus of elongating spermatids {ECO:0000250|UniProtKB:Q925K9}
Tissue Location	Highly expressed in testis. Expressed at lower levels in colon, small intestine, ovary, prostate, thymus, spleen and peripheral blood leukocytes.