10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Serine/threonine protein kinase MAK Rabbit pAb

Catalog # AP99702

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P20794
Other Accession	P20794
Reactivity	Rat
Predicted	Pig, Cat, Human, Mouse, Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70581
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Serine/threonine protein kinase MAK
Epitope Specificity	101-200/623
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. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.
Post-translational modifications	modificationsAutophosphorylated. Phosphorylated on serine and threonine residues.
DISEASE	Defects in MAK are the cause of retinitis pigmentosa type 62 (RP62) [MIM:614181]. RP62 is a retinal dystrophy belonging to the group of pigmentary retinopathies. Retinitis pigmentosa is characterized by retinal pigment deposits visible on fundus examination and primary loss of rod photoreceptor cells followed by secondary loss of cone photoreceptors. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The product of this gene is a serine/threonine protein kinase related to kinases involved in cell cycle regulation. It is expressed almost exclusively in the testis, primarily in germ cells. Studies of the mouse and rat homologs have localized the kinase to the chromosomes during meiosis in spermatogenesis, specifically to the synaptonemal complex that exists while homologous chromosomes are paired. There is, however, a study of the mouse homolog that has identified high levels of expression in developing sensory epithelia so its function may be more generalized. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2011]

Additional Information

Gene ID	4117

Other Names	RP62; A930010O05Rik; MAK_HUMAN; MAK; Male germ cell-associated kinase; 2.7.11.1; MAK_MOUSE; Protein kinase RCK; Rck; MAK_RAT; male germ cell associated kinase
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	MAK
Function	Essential for the regulation of ciliary length and required for the long-term survival of photoreceptors (By similarity). Phosphorylates FZR1 in a cell cycle-dependent manner. Plays a role in the transcriptional coactivation of AR. Could play an important function in spermatogenesis. May play a role in chromosomal stability in prostate cancer cells.
Cellular Location	Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle Midbody. Cell projection, cilium, photoreceptor outer segment. Photoreceptor inner segment. Note=Localized in both the connecting cilia and the outer segment axonemes (By similarity) Localized uniformly in nuclei during interphase, to the mitotic spindle and centrosomes during metaphase and anaphase, and also to midbody at anaphase until telophase.
Tissue Location	Expressed in prostate cancer cell lines at generally higher levels than in normal prostate epithelial cell lines Isoform 1 is expressed in kidney, testis, lung, trachea, and retina Isoform 2 is retina-specific where it is expressed in rod and cone photoreceptors.

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