



Rabbit Anti-Serine/threonine protein kinase MAK antibody

SL18635R

Product Name:	Serine/threonine protein kinase MAK
Chinese Name:	丝氨酸/苏氨酸蛋白激酶MAK抗体
Alias:	dJ417M14.2; Mak; MAK_HUMAN; Male germ cell associated kinase; Male germ cell-associated kinase; OTTHUMP00000016025; Rck; Serine/threonine protein kinase MAK; Serine/threonine-protein kinase MAK.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Rabbit,Cat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	71kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Serine/threonine protein kinase MAK:101-200/623
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	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]

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.

Subcellular Location:

Nucleus. Cytoplasm > cytoskeleton > centrosome. Cytoplasm > cytoskeleton > spindle. Midbody. Cell projection > cilium > photoreceptor outer segment. Photoreceptor inner segment. 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 Specificity:

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.

Post-translational modifications:

Autophosphorylated. 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.

Similarity:

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.

SWISS:

P20794

Gene ID:
4117

Database links:

[Entrez Gene: 4117](#) Human

[Entrez Gene: 17152](#) Mouse

[Entrez Gene: 25677](#) Rat

[Omim: 154235](#) Human

[SwissProt: P20794](#) Human

[SwissProt: Q04859](#) Mouse

[SwissProt: P20793](#) Rat

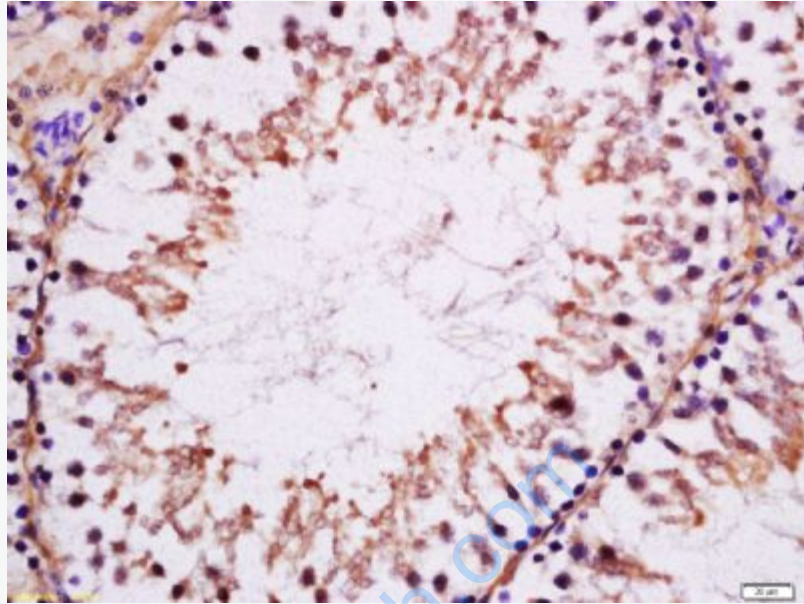
[Unigene: 446125](#) Human

[Unigene: 8149](#) Mouse

[Unigene: 9670](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Tissue/cell: rat testis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-Serine/threonine protein kinase MAK Polyclonal Antibody, Unconjugated(SL18635R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining