

Product datasheet for **RC220944**

KATNAL1 (NM_001014380) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KATNAL1 (NM_001014380) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KATNAL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220944 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAATTTGGCTGAGATTTGTGATAATGCAAGAAAGGAAGAGAATATGCCCTTCTTGAAATTACGACT
 CATCAATGGTATATTACCAGGGGTGATGCAGCAGATTACAGACATTGCCAGTCAGTCAGAGATCCAGC
 TATCAAAGGCCAAATGGCAACAGGTTTCGGCAGGAATTATTGGAGGAATATGAACAAGTTAAAAAGTATTGTC
 AGCACTTTAGAAAAGTTTTAAAATTGACAAGCCTCCAGATTTCCCTGTGTCTGTCAAGATGAACCATTTA
 GAGATCCTGTGTTTGGCCACCCCTGTTCTGCAGAACACAGAGCTCCACCTCAGATCAGGCGTCCCAA
 TCGAGAAGTAAGACCTCTGAGGAAAGAAATGGCAGGAGTAGGAGCCCGGGACCTGTAGGCCGAGCACAT
 CCTATATCAAAGAGTGAAAAGCCTTCTACAAGTAGGGACAAGGACTATAGAGCAAGAGGGAGAGATGACA
 AGGAAGGAAGAATATGCAAGATGGTCAAGTATGGTGAATGCCAAAATTTGATGGTGTGTTATGA
 TAAGGATCTGGTGAAGCCCTTGAAGAGACATTGTATCCAGGAATCCTAGCATTATTGGGATGACATA
 GCAGATCTGGAAGAAGCTAAGAAGTTGTAAGGGAAGCTGTTGTTCTTCCAATGTGGATGCCTGACTTTT
 TCAAAGGGATTAGAAGGCCATGGAAGGGTGTACTGATGGTTGGACCCCGAGCACTGGTAAAACATGCT
 AGCTAAAGCTGTTGCCACTGAATGTGGTACAACATTTCTCAACGTTTCGTCTTCTACACTGACATCTAAA
 TACAGAGGTGAATCTGAGAAGTTAGTTCGTCTGTTGTTTGGATGGCTAGATTTTATGCCCTACCACGA
 TCTTCATTGATGAGATAGATTCTATCTGCAGTCGAAGAGGAACCTCTGATGAACATGAGGCAAGTCGCAG
 GGTC AAGTCTGAAGTCTCATT CAGATGGATGGAGTTGGAGGAGCTTTAGAAAATGATGATCCTTCCAAA
 ATGGTTATGGTATTGGCTGCTACTAATTTCCCGTGGGACATTGATGAAGCTTTGCGAAGAAGGTTAGAAA
 AAAGATATATACCTCTCCCAACAGCAAAGGAAGAGCTGAGCTTCTGAAGATCAACCTTCGTGAGGT
 CGAATTAGATCCTGATATTCAACTGGAAGATATAGCCGAGAAGATTGAGGGCTATTCTGGTGTGACATC
 ACTAATGTTTGCAGGGATGCCTCTTAAATGGCAATGAGACGGCGTATCAATGGCTTAAGTCCAGAAGAAA
 TCCGTGCACTTTCTAAAGAGGAACCTCAGATGCCTGTTACCAAAGGAGACTTTGAATTGGCCCTAAAGAA
 AATTGCTAAGTCTGTCTCTGCTGCAGACTTGGAGAAGTATGAAAATGGATGGTTGAATTTGGATCTGCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220944 protein sequence
 Red=Cloning site Green=Tags(s)

MNLAEICDNAKKGREYALLGNYDSSMVYQGVMMQIQRHCSVRDPAIKGKWQVVRQELLEEEYEQVKSIV
 STLESFKIDKPPDFPVSCQDEPFRDPAVWPPVPAEHRAPPQIRRPNREVRPLRKEMAGVGARGPVGRAH
 PISKSEKSTSRDKDYRARGRDDKGRKNMQDGASDGEMPKFDGAGYDKDLVEALERDIVSRNPSIHWDDI
 ADLEEAKKLLREAVVLPWMPDFFKGIRRPWKVLMVGPPGTGKTM LAKAVATECGTTFNFVSSSTLTSK
 YRGESEKLVRLLFEMARFYAPTTIFIDEIDSICSRRTSDEHEASRRVKSELLIQMDGVGGALENDPDK
 MVMVLAATNFPWDIDEALRRRLEKRIYIPLPTAKGRAELLKINLREVELDPDIQLEDIAEKIEGYSGADI
 TNVCRDASLMAMRRRINGLSPEIRALSKEELQMPVTKGFELALKKIAKSVSAADLEKYEKWMVEFGSA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6583_b08.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001014380

ORF Size: 1470 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001014380.3](#)

RefSeq Size: 7512 bp

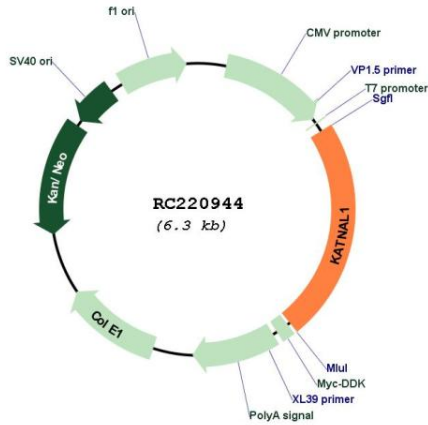
RefSeq ORF: 1473 bp

Locus ID: 84056

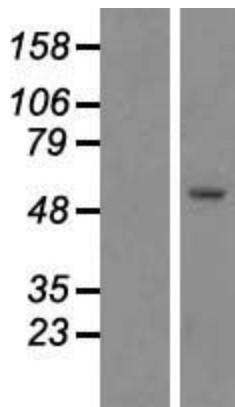
UniProt ID: [Q9BW62](#)
 Cytogenetics: 13q12.3
 MW: 55.4 kDa

Gene Summary: Regulates microtubule dynamics in Sertoli cells, a process that is essential for spermiogenesis and male fertility. Severs microtubules in an ATP-dependent manner, promoting rapid reorganization of cellular microtubule arrays (By similarity). Has microtubule-severing activity in vitro (PubMed:26929214).[UniProtKB/Swiss-Prot Function]

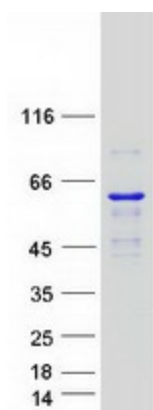
Product images:



Circular map for RC220944



Western blot validation of overexpression lysate (Cat# [LY423055]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220944 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KATNAL1 protein (Cat# [TP320944]). The protein was produced from HEK293T cells transfected with KATNAL1 cDNA clone (Cat# RC220944) using MegaTran 2.0 (Cat# [TT210002]).