

## Product datasheet for **RC216736**

### **CATSPER2 (NM\_054020) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CATSPER2 (NM_054020) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CATSPER2
Synonyms:	MGC33346
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC216736 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCGCTTACCAACAAGAAGAGCAGATGCAGCTTCCCGAGCTGATGCCATTCGTTACAGTCTCATCG  
 ATACTTTCTCTCTCATTGAGCATTTGCAAGGCTTGAGCCAAGCTGTGCCCGGCACACTATCAGGGAGTT  
 ACTTGATCCTTCCCGCCAGAAGAACTTGATTGGGAGATCAACACCAGCTAGTGCCTTTCTCTATAAAG  
 CCTCAGCGTATAGAACAGATTTACATGCCAGAGGCTTTGAGCAGGCTTCATGTGCGCTGCAGTCAGA  
 GGCCACCTCTTTCTTTGTGGCCGGATGGGTCCTTGAGTGTCTCTTTCAAAAACCTTCATCATCTTCT  
 GGTCTTTTGAATACGATCATATTGATGGTTGAAATAGAATTGCTGGAATCCACAAATACCAAATATGG  
 CCATTGAAGCTGACCTTGAGGTGGCAGCTTGGTTTATCTTGCTATTTTCATCTGGAGATCCTTCTTA  
 AGTGGCTATCCAACCTTTCTGTTTTCTGGAAGAGTGCCTGGAATGTCTTGACTTTGTTGTACCATGTT  
 GTCCTGCTTCCGAGGTTGTGGTATTGGTAGGGTAACAGGCCAATCGGTGGCTTCAGCTTCTGAGG  
 ATCTGCCGGGTGCTGAGTCTCTCAAACCTTGCACAATCCGTCAAATCAAATATTATTTTGGTCC  
 TGGTCAGGGCCCTCAAGAGCATGACCTTCTTCTGATGTTGCTGCTCATCTTCTTCTACATTTTTGCTGT  
 GACTGGTGTCTACGTCTTCTCAGAGTACACCCGTTACCTCGTCAGGACCTGGAGTACCATGTGTTCTTC  
 TCGGACCTCCCGAATCCCTGGTAACAGTGTTCATTCTTTCACCTTGGATCATTGGTATGCACTGCTTC  
 AGGACGCTGGAAGGTGCCTGAAGTCAGTCGCATCTTCAGCAGCATCTATTTTCATCTTTGGTTGTGCT  
 TGGCTCCATTATCTTTCGAAGTATCATAGTAGCCATGATGGTTACTAATTTTCAAGTATCAGGAAAGAG  
 CTGAATGAGGAGATGGCGCTCGGGAGGTTGAGTCAAAGTGCATGTTCAAGCGGCAGATCATCCAGA  
 GGAGAAAAAACATGTCACATGAAGCACTGACGTCAAGCCATAGCAAAATAGAGGACAGAGGAGTCA  
 ACAAGGAAAGTTGGACTTATCAGAAGTGTCTGAAGTAGAGTCTAATTATGGTGCCACTGAAGAGGAT  
 TTAATAACATCTGCATCAAAAACAGAAGAGACCTTGTCAAAAAGAGAGTACCAGTCTTCTCTCTGTG  
 TCTCTCCACATCTTCTCTTCT  
 CTGGGAGACTCTGTGCACGAAATCTGCCGGGCTAATGAAATGGATCAGGATGACCGTGTGGCC  
 AGAGACTACTCTCCGATATTTTGAAGTGTAGAAAAGCTTCAAGTATAACCTAGAGAACGTAAGAAGT  
 TACAAGAGTTGCAGTGCAGGCACTGATGAACCTGGAAGACAAG

**ACCGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:**

>RC216736 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAYQEEQMLPRADAIRSRLIDTFSLIEHLQGLSQAVPRHTIRELLDPSRQKLVGLGDQHLVRFSSIK  
 PQRIEQISHAQRLLSRLHVRCSQRPLSLWAGWVLECPFKNFIIFLVFLNTIILMVEIELLESTNTKLW  
 PLKLTLEVAWFILLIFILEILLKWSNFSVFWKSAWNVDFVVTMLSLPEVVVLVGVGTQSVWLQLLR  
 ICRVLRSLKLLAQFRQIQIILVLRALKSMTFLLMLLFFFYIFAVTGVYVFSEYTRSPRQDLEYHVFF  
 SDLPNSLVTVFIFLFDLHWYALLQDVWKVPEVSRIFSSIFILWLLGSIIFRSIIVAMMVTNFQIRKE  
 LNEEMARREVQLKADMFKRQIIQRKNMSHEALTSKSHKIEDRGASQQRESLDLSEVSEVESNYGATEED  
 LITSASKTEETLSKKREYQSSCVSSTSSSYSSSESSESRFSESIGRLDWETLVHENLPLMEMDQDDRVP  
 RDSLFRYFELLEKLQYNLEERKKLQEFVQALMNLEDK

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Chromatograms:**

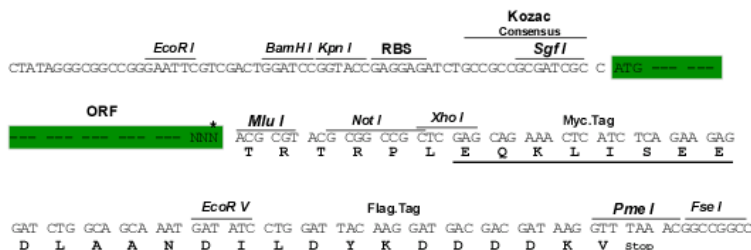
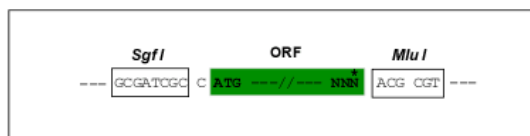
[https://cdn.origene.com/chromatograms/mk6355\\_g08.zip](https://cdn.origene.com/chromatograms/mk6355_g08.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_054020

**ORF Size:** 1584 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.

**RefSeq:** [NM\\_054020.3](#)
**RefSeq Size:** 1941 bp

**RefSeq ORF:** 1587 bp

**Locus ID:** 117155

**UniProt ID:** [Q96P56](#)
**Cytogenetics:** 15q15.3

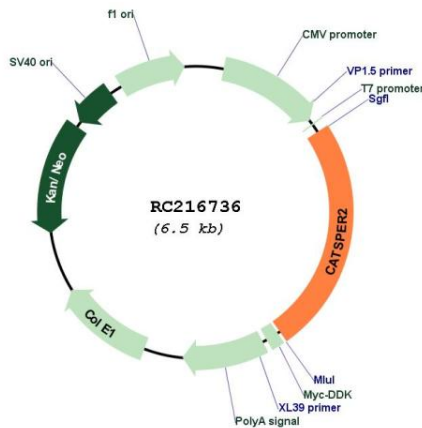
**Domains:** ion\_trans

**Protein Families:** Druggable Genome, Ion Channels: Other, Transmembrane

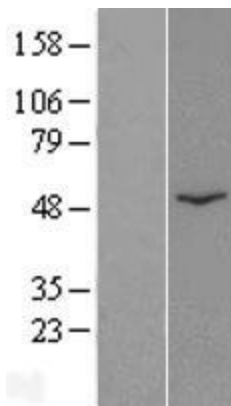
**MW:** 61.9 kDa

**Gene Summary:** This gene encodes a member of a family of cation channel proteins that localize to the flagellum of spermatozoa. Defects at this locus causes male infertility. Alternatively spliced transcript variants have been observed at this locus. Readthrough transcription originates upstream of this locus in diphosphoinositol pentakisphosphate kinase 1 pseudogene 1 and is represented by GeneID:110006325. Related pseudogenes are found next to this locus on chromosome 15 and on chromosome 5. [provided by RefSeq, Mar 2017]

**Product images:**



Circular map for RC216736



Western blot validation of overexpression lysate (Cat# [LY409304]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216736 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).