

## Product datasheet for **MR230309**

### Cttn (NM\_001252572) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cttn (NM_001252572) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cttn
Synonyms:	1110020L01Rik; Ems1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230309 representing NM\_001252572  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTGAAAGCCTCTGCAGGCCATGCTGTGTCCATCACGCAGGATGATGGAGAGCTGATGACTGGGAGA  
 CTGATCCTGATTTTGTGAATGATGTGAGTGAAAAGGAGCAGAGATGGGGTCTAAAACCGTCAGGGATC  
 GGGCACCCAGGAACACATCAACATTCACAAGCTTCGAGAGAATGTCTTCCAAGAACCAGACGCTCAAG  
 GAGAAGGAGCTGGAAACGGGACCAAGGCTTCCCACGGCTATGGCGGGAAGTTCGGTGTGGAGCAGGATA  
 GGATGGACAGATCAGCCGTGGGCCATGAGTACCAGTCGAAGCTTTCGAAGCACTGCTCACAAGTGGACTC  
 GGTCCGGGGCTTCGGAGGCAAGTTCGGTGTCCAGATGGACAGGGTGGATCAGTCTGCTGTAGGCTTTGAA  
 TACCAGGGGAAGACTGAGAAGCATGCCTCCAGAAAGACTACTCTAGTGGCTTCGGTGGCAAATACGGTG  
 TGCAAGCTGACCGTGTAGACAAGAGTCCCGTGGGCTTTGACTACCAGGGCAAGACGGAGAAGCATGAGTC  
 TCAGAAAGATTACTCAAAGTTTTGGTGGCAAATATGGGATTGACAAGGACAAGGTGGATAAAAGTGTCT  
 GTGGGCTTTGAGTATCAAGGCAAGACAGAGAAGCAGCAATCCCAGAAAGACTATGTAAAAGGCTTTGGAG  
 GAAAGTTTGGTGTGCAGACAGACAGACAGGACAAGTGTGCCCTTGGCTGGGACCATCAGGAGAAGCTGCA  
 GCTGCATGAATCCAAAAAGACTATGCCAAAGGATTCGGCGGGAAGTATGGGGTGCAGAAGGATCGGATG  
 GACAAGAATGCATCCACCTTTGAAGAAGTGGTCCAGGTGCCATCTGCCTATCAGAAGACTGTCCCCATTG  
 AGGCCGTAAACCAGCAAAACAGTAAATACCGTGTCTAACTTTGAAAACCTGGCAAAGGAGAGAGAGCAGGA  
 GGACAGGCGGAAGGCAGAAGCCGAGAGAGCTCAGCGGATGGCCAAAGAAAGACAGGAGCAGGAGGAGGCG  
 CGCAGGAAGCTGGAAGAGCAAGCCAGAGCAAGAAGCAGACGCCCCCTGCATCCCCTAGTCTCAACCAA  
 TTGAAGACAGACCACCCTCCAGCCCCATCTATGAGGATGCAGTCCGTTCAAGGCCGAGCCGATACCC  
 AGGTAGCGAACCTGAGCCTGAGTACAGCATCGAGGCCGAGGCATTCTGAGGCTGGCAGCCAGCAAGGC  
 CTGACCTATACATCAGAGCCCGTACGAGACTACAGAGGCTCCTGGCCACTATCAAGCAGAGGATGACA  
 CCTACGATGGGTATGAGAGTGACCTGGGCATCACAGCCATCGCCCTGTATGACTACCAGGCTGCTGGCGA  
 TGATGAGATCTCCTTTGACCCTGATGACATCATACCAACATAGAAATGATTGACGATGGCTGGTGGCGT  
 GGGGTGTCAAGGGCAGATACGGGCTCTCCAGCCAACATGTGGAGCTGCGGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230309 representing NM\_001252572  
 Red=Cloning site Green=Tags(s)

MWKASAGHAVSITQDDGGADDWETDPDFVNDVSEKEQRWGAKTVQGSQGHQEHINIHKLRENVFQEHQTLK  
 EKELETGPKASHGYGGKFGVEQDRMDRSVAVGHEYQSKLSKHCSQVDSVRFGGKFGVQMDRVDQSAVGFE  
 YQKTEKHASQKDYSSGFGGKYGVQADRVKSAVGFYDQKTEKHESQKDYSGKFGGKYIDKDKVSKSA  
 VGFEYQKTEKHESQKDYVKGFGGKFGVQTRQDKCALGWDHQEKLQLHESQKDYAKGFGGKYGVQKDRM  
 DKNASTFEEVVQVPSAYQKTPVIEAVTSKTSNIRANFENLAKEREQEDRRKAEAEARAQRMAKERQEQUEA  
 RRRKLEEQARAKKQTPPASPSQPQIEDRPPSSPIYEDAAPFKAEPYRGSEPEPEYSIEAAGIPEAGSQGG  
 LTYTSEPVYETTEAPGHYQAEDDYYDGYESDLGITAIALYDYQAAGDDEISFDPDDIITNIEMIDGWWR  
 GVCKGRYGLFPANYVELRQ

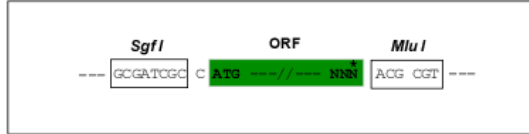
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

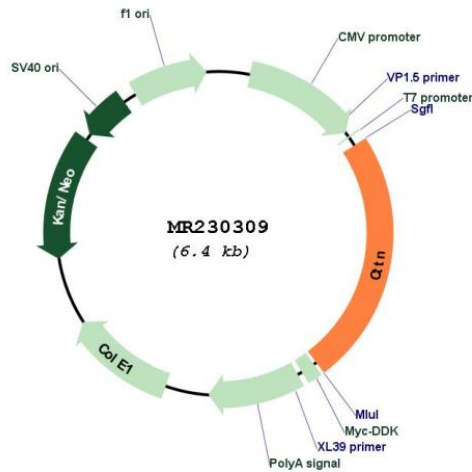
Cloning Scheme:

Cloning sites used for ORF Shutting:



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

Plasmid Map:



ACCN: NM\_001252572

ORF Size: 1527 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001252572.1, NP_001239501.1</u>
<b>RefSeq Size:</b>	3112 bp
<b>RefSeq ORF:</b>	1530 bp
<b>Locus ID:</b>	13043
<b>Cytogenetics:</b>	7 F5
<b>MW:</b>	57.5 kDa
<b>Gene Summary:</b>	Contributes to the organization of the actin cytoskeleton and cell shape (PubMed:17403031). Plays a role in the formation of lamellipodia and in cell migration (By similarity). Plays a role in the regulation of neuron morphology, axon growth and formation of neuronal growth cones (By similarity). Through its interaction with CTTNBP2, involved in the regulation of neuronal spine density (PubMed:22262902). Plays a role in the invasiveness of cancer cells, and the formation of metastases (By similarity). Plays a role in focal adhesion assembly and turnover (By similarity). In complex with ABL1 and MYLK regulates cortical actin-based cytoskeletal rearrangement critical to sphingosine 1-phosphate (S1P)-mediated endothelial cell (EC) barrier enhancement (By similarity). Plays a role in intracellular protein transport and endocytosis, and in modulating the levels of potassium channels present at the cell membrane (PubMed:17959782). Plays a role in receptor-mediated endocytosis via clathrin-coated pits (By similarity). Required for stabilization of KCNH1 channels at the cell membrane (By similarity).[UniProtKB/Swiss-Prot Function]