

## Product datasheet for **MR227323**

### **Cttn (NM\_007803) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cttn (NM_007803) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cttn
Synonyms:	1110020L01Rik; Ems1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR227323 representing NM\_007803  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGAAAGCCTCTGCAGGCCATGCTGTGTCCATCACGCAGGATGATGGAGAGCTGATGACTGGGAGA  
 CTGATCCTGATTTTGTGAATGATGTGAGTGAAAAGGAGCAGAGATGGGGTCTAAAACCGTCAGGGATC  
 GGGCACCCAGGAACACATCAACATTCACAAGCTTCGAGAGAATGTCTTCCAAGAACCAGACGCTCAAG  
 GAGAAGGAGCTGGAAACGGGACCAAGGCTTCCCACGGCTATGGCGGAAGTTCGGTGTGGAGCAGGATA  
 GGATGGACAGATCAGCCGTGGGCCATGAGTACCAGTCGAAGCTTTCGAAGCACTGCTCACAAGTGGACTC  
 GGTCCGGGGCTTCGAGGCAAGTTCGGTGTCCAGATGGACAGGGTGGATCAGTCTGCTGTAGGCTTTGAA  
 TACCAGGGGAAGACTGAGAAGCATGCCTCCCAGAAAGACTACTCTAGTGGCTTCGGTGGCAAATACGGTG  
 TGCAAGCTGACCGTGTAGACAAGAGTCCCGTGGGCTTTGACTACCAGGGCAAGACGGAGAAGCATGAGTC  
 TCAGAAAGATTACTCAAAGTTTTGGTGGCAAATATGGGATTGACAAGGACAAGGTGGATAAAAAGTGT  
 GTGGGCTTTGAGTATCAAGGCAAGACAGAGAAGCAGAAATCCCAGAAAGACTATGTAAAAGGCTTTGGAG  
 GAAAGTTTGGTGTGCAGACAGACAGACAGGACAAGTGTGCCCTTGGCTGGGACCATCAGGAGAAGCTGCA  
 GCTGCATGAATCCAAAAAGACTATAAGACTGGTTTTCGGAGGCAAATTTGGTGTTCAGTCCGAGAGGCAG  
 GACTCCTCCGCTGTGGGTTTTGATTACAAGGAGAGATTGGCCAAGCACGAGTCCCAGCAAGACTATGCCA  
 AAGGATTCGGCGGGAAGTATGGGGTGCAGAAGGATCGGATGGACAAGAATGCATCCACCTTTGAAGAAGT  
 GGTCCAGGTGCCATCTGCCTATCAGAAGACTGTCCCCATTGAGGCCGTAACCAGCAAAACCGTAATATC  
 CGTGCTAACTTTGAAAACCTGGCAAAGGAGAGAGAGCAGGAGGACAGGCGGAAGGCAGAAGCCGAGAGAG  
 CTCAGCGGATGGCCAAAGAAAGACAGGAGCAGGAGGAGGCGCAGGAAGCTGGAAGAGCAAGCCGAGAGC  
 CAAGAAGCAGACGCCCCCTGCATCCCCTAGTCCTCAACCAATTGAAGACAGACCACCTCCAGCCCCATC  
 TATGAGGATGCAGCTCCGTTCAAGGCCGAGCCGAGCTACCAGGAGTACGAACCTGAGCCTGAGTACAGCA  
 TCGAGGCCGAGGCATTCTGAGGCTGGCAGCCAGCAAGGCCGCTGACCTATACATCAGAGCCCGTGTACGA  
 GACTACAGAGGCTCCTGGCCACTATCAAGCAGAGGATGACACCTACGATGGGTATGAGAGTGACCTGGGC  
 ATCACAGCCATCGCCCTGTATGACTACCAGGCTGCTGGCGATGATGAGATCTCCTTTGACCTGATGACA  
 TCATCACCAACATAGAAATGATTGACGATGGCTGGTGGCGTGGGGTGTGCAAGGGCAGATACGGGCTCTT  
 CCCAGCCAACATGTGGAGCTCGGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR227323 representing NM\_007803  
 Red=Cloning site Green=Tags(s)

MWKASAGHAVSITQDDGGADDWETDPDFVNDVSEKEQRWGAKTVQSGHQEHINIHKLRENVQEHQTLK  
 EKELETGPKASHGYGGKFGVEQDRMDRSVAVGHEYQSKLSKHCSQVDSVRGFGGKFGVQMDRVDQSAVGF  
 YQKTEKHASQKDYSSGFGGKYGVQADRVKSAVGFYQKTEKHESQKDYSGFGGKYIDKDKVDKSA  
 VGFYQKTEKHESQKDYVKGFGKFGVQTDQDKCALGWDHQEKLQLHESQKDYKTFGGKFGVQSERQ  
 DSSAVGFYKERLAKHESQDYAKFGGKYGVQKDRMDKNASTFEEVVQVPSAYQKTPVIEAVTSKTSNI  
 RANFENLAKEREQEDRRKAEERAQMAKERQEAEARRKLEEQARAKKQTPPASPSPQIEDRPPSSPI  
 YEDAAPFKAEPSYRGSEPEPEYSIEAAGIPEAGSQQLTYTSEPYYETTEAPGHYQAEDDTYDGYESDLG  
 ITAIALYDYQAAGDDEISFDPDDIITNIEMIDDGWRGVCKGRYGLFPANYVELRQ

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_007803

**ORF Size:** 1638 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\\_007803.5](#), [NP\\_031829.2](#)
**RefSeq Size:** 3029 bp

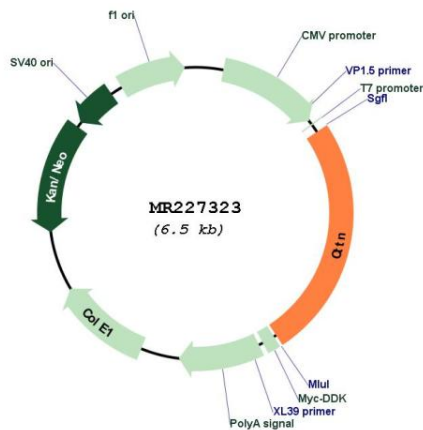
**RefSeq ORF:** 1641 bp

**Locus ID:** 13043

**UniProt ID:** [Q60598](#)

Cytogenetics:	7 F5
MW:	61.7 kDa
Gene Summary:	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]

### Product images:



Circular map for MR227323