

## Product datasheet for **RC223259**

### Cortactin (CTTN) (NM\_005231) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cortactin (CTTN) (NM_005231) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cortactin
Synonyms:	EMS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC223259 representing NM\_005231  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGAAAGCTTCAGCAGGCCACGCTGTGTCCATCGCCAGGATGACGCGGGGGCCGATGACTGGGAGA  
 CCGACCTGATTTTGTGAATGATGTGAGTGAGAAGGAGCAAAGATGGGGTGCCAAGACGGTGCAGGGCTC  
 CGGGCACCAGGAGCATATCAACATACACAAGCTGAGGGAGAATGTCTTTCAAGAGCATCAGACCCCTAAG  
 GAGAAGGAACTTGAAACAGGACAAAAGCTTCCCATGGCTATGGAGGAAATTTGGTGTGGAACAAGACC  
 GAATGGATAAGTCAGCTGTGGCCACGAATATCAGTCGAACTTTCCAAGCACTGCTCGCAGGTGGACTC  
 GGTCCGTGGCTTCGGAGGCAAGTTTGGTGTCCAGATGGACAGAGTTGATCAGTCTGCTGTAGGCTTTGAA  
 TACCAGGGGAAGACTGAGAAGCATGCCTCCAGAAAGACTACTCCAGTGGTTTTGGCGGCAAGTATGGCG  
 TGCAGGCCGACCGAGTAGACAAGAGCGCGGTGGGCTTCGACTACCAGGGCAAGACGGAGAAGCACGAGTC  
 ACAGAGAGATTACTCAAAGTTTCGGCGGCAAATACGGTATCGACAAGGACAAAGTGGATAAGAGCGCC  
 GTTGGCTTTGAGTATCAAGGCAAACGGAGAAGCACGAGTCCCAGAAAGACTATGTGAAAGGGTTTTGGAG  
 GAAAATTTGGTGTGCAGACAGACAGACAAGACAATGTGCCCTTGGCTGGGATCACCAGGAGAAATTTGCA  
 GCTGATGAATCCAAAAAGATTATAAGACTGGTTTTGGAGGCAAATTCGGTGTTCAGTCGGAGAGGCGAG  
 GACTCCGCTGCTGTGGGTTTTGATTACAAGGAGAAGCTGGCCAAGCACGAGTCCCAGCAAGACTACTCCA  
 AAGGATTCGGCGGGAAGTATGGGGTGCAGAAGGATCGGATGGATAAGAATGCGTCAACCTTTGAGGATGT  
 CACCCAGGTGCTCTGCCTACCAGAAGACGTACCTGTGCAAGCTGTGACCAGCAAAACAAGTAACATC  
 AGAGCTAACTTTGAAAACCTCGCTAAGGAGAAAGAGCAGGAGGACAGGCGGAAGGCGGAGCGGAGAGAG  
 CCCAAGCGGATGGCCAAGGAGCGGACAGGAGCAAGGAGGCAAGGAGGAGCTGGAGGAGCAAGCCAGAGC  
 CAAAACGCAAACGCCCCCTGTGTGCGCCCGCACTCAGCCAACCGAGGAGAGGCTGCCCTCGAGCCCGTC  
 TATGAGGATGCGGCTTCTTCAAGGCAGAGCTGAGCTACAGAGGCCCTGTGAGTGGGACGGAGCCGGAGC  
 CCGTGTACAGCATGGAGGCCGCTGACTACCAGAGGGCCAGCAGCCAGCAGGGCCTGGCCTATGCCACAGA  
 GGCTGTCTATGAAAGCGCAGAGGCCCGGGCCACTATCCCGCAGAGGACAGCACCTACGATGAGTACGAG  
 AACGATCTGGGGATCACAGCCGTCGCCCTGTACGACTACCAGGCTGCGGGCGATGATGAGATCTCATTTG  
 ACCCTGATGACATCATCACCAACATCGAGATGATTGACGACGGCTGGTGGCGGGGTGTGCAAGGGCCG  
 GTACGGGCTCTTCCAGCCAATATGTGGAGCTGCGGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC223259 representing NM\_005231  
 Red=Cloning site Green=Tags(s)

MWKASAGHAVSIAQDDAGADDWETPDFVNDVSEKEQRWGAKTVQSGHQEHINIHKLRENVFQEHQTLK  
 EKELETGPKASHGYGGKFGVEQDRMDKSAVGHYQSKLSKHCSQVDSVRGFGGKFGVQMDRVDQSAVGF  
 YQKTEKHASQKDYSSGFGGKYGVQADRVKSAVGFYQKTEKHESQRDYSKFGGKYGIDKDKVDKSA  
 VGFYQKTEKHESQKDYVKGFGGKFGVQTDQDKCALGWDHQEKLQLHESQKDYKTFGGKFGVQSERQ  
 DSAAVGFYKEKLAHESQDYSGFGGKYGVQKDRMDKNASTFEDVTQVSSAYQKTPVPEAVTSKTSNI  
 RANFENLAKEKEQEDRRKAEERAQMAKERQEAEARRKLEEQARAKTQTPPVSPAPQPTTEERLPSSPV  
 YEDAASFKAELSYRGPVSGTEPEPVYSMEADYREASSQGLAYATEAVYESAEAPHYPAEDSTYDEYE  
 NDLGITAVALYDQAAGDDEISFPDDIITNIEMIDDGWWRGVCKGRYGLFPANYVELRQ

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3447\\_h01.zip](https://cdn.origene.com/chromatograms/mg3447_h01.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_005231

**ORF Size:** 1650 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_005231.4](#)

**RefSeq Size:** 3243 bp

**RefSeq ORF:** 1653 bp

**Locus ID:** 2017

**UniProt ID:** [Q14247](#)

**Cytogenetics:** 11q13.3

**Domains:** SH3, HS1\_rep

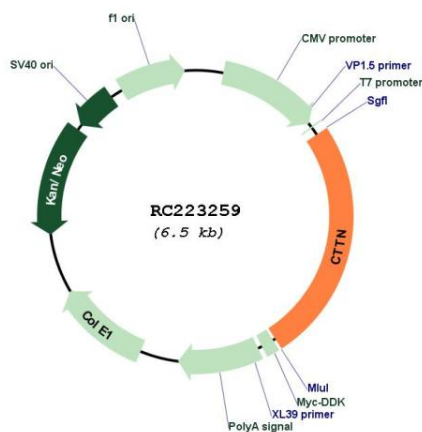
**Protein Families:** Druggable Genome

**Protein Pathways:** Pathogenic Escherichia coli infection, Tight junction

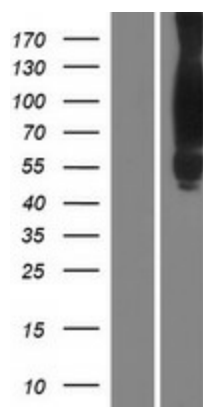
**MW:** 61.4 kDa

**Gene Summary:** This gene is overexpressed in breast cancer and squamous cell carcinomas of the head and neck. The encoded protein is localized in the cytoplasm and in areas of the cell-substratum contacts. This gene has two roles: (1) regulating the interactions between components of adherens-type junctions and (2) organizing the cytoskeleton and cell adhesion structures of epithelia and carcinoma cells. During apoptosis, the encoded protein is degraded in a caspase-dependent manner. The aberrant regulation of this gene contributes to tumor cell invasion and metastasis. Three splice variants that encode different isoforms have been identified for this gene. [provided by RefSeq, May 2010]

### Product images:



Circular map for RC223259



Western blot validation of overexpression lysate (Cat# [LY417430]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223259 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).