

Product datasheet for **MC221551**

Ctnnb1 (NM_001165902) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ctnnb1 (NM_001165902) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ctnnb1
Synonyms:	Bfc; Cat; Catnb; Mesc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221551 representing NM_001165902
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTACTCAAGCTGACCTGATGGAGTTGGACATGGCCATGGAGCCGGACAGAAAAGCTGCTGTACGCC
 ACTGGCAGCAGCAGTCTTACTTGGATTCTGGAATCCATTCGGTGCCACCACCACAGCTCCTCCCTGAG
 TGGCAAGGGCAACCCTGAGGAAGAAGATGTTGACACCTCCAAGTCTTTATGAATGGGAGCAAGGCTTT
 TCCAGTCTTACGCAAGAGCAAGTAGCTGATATTGACGGGCAGTATGCAATGACTAGGGCTCAGAGGG
 TCCGAGCTGCCATGTTCCCTGAGACGCTAGATGAGGGCATGCAGATCCCATCCACGCAGTTTGACGCTGC
 TCATCCCCTAATGTCCAGCGCTTGGCTGAACCATCACAGATGTTGAAACATGCAGTTGTCAATTTGATT
 AACTATCAGGATGACGCGGAACCTGCCACACGTGCAATTCCTGAGCTGACAAAACCTGCTAAACGATGAGG
 ACCAGGTGGTAGTTAATAAAGCTGCTGTTATGGTCCATCAGCTTCCAAAAAGGAAGCTCCAGACATGC
 CATCATGCGCTCCCTCAGATGGTGTCTGCCATTTGACGCACCATGCAGAATACAATGATGTAGAGACA
 GCTCGTTGTAAGTCTGGGACTCTGCACAACCTTCTCACCACCGGAGGGCTTGCTGGCCATCTTTAAGT
 CTGGTGGCATCCCAGCGCTGGTGAATGCTTGGGTACCAAGTGGATTCTGTACTGTTCTACGCCATCAC
 GACTGACATAATCTCCTGCTCCATCAGGAAGGAGCTAAAATGGCAGTGCCTAGCTGGTGGACTGCAG
 AAAATGGTTGCTTGGCTCAACAAAAACAACGTGAAATCTTGGCTATTACAACAGACTGCCTCAGATCT
 TAGCTTATGGCAATCAAGAGAGCAAGCTCATATTCTGGCCAGTGGTGGACCCCAAGCCTTAGTAAACAT
 AATGAGGACCTACACTTATGAGAAGCTTCTGTGGACCACAAGCAGAGTGTGAAGGTGCTGTCTGTCTGC
 TCTAGCAACAAGCCGGCATTGTAGAAGCTGGTGGATGCAGGCACTGGGCTTCATCTGACAGACCCAA
 GTCAGCGACTTGTCAAACCTGCTTTGGACTCTCAGAAACCTTTCAGATGCAGCGACTAAGCAGGAAGG
 GATGGAAGGCCTCCTTGGGACTCTAGTGCAGCTTCTGGGTTCCGATGATATAAATGTGGTACCTGTGCA
 GCTGGAATCTCTCTAACCTCACTTGAATAATTACAAAAACAAGATGATGGTGTGCCAAGTGGGTGGCA
 TAGAGGCTCTGTACGCACCGCTCTTCTGTGGTGCAGGGAAGACATCACTGAGCCTGCCATCTGTGC
 TCTTCGTCTGACAGCCGGCATCAGGAAGCCGAGATGGCCAGAATGCCGTTGCGCTTCATTATGGA
 CTGCTGTTGTGGTTAACTCCTGCACCCACCATCCCCTGCGCTCTGATAAAGGCAACTGTTGGATTGA
 TTCGAAACCTTGGCCTTGGCCAGCAAATCATGCGCTTTCGGGAAACAGGGTGTATTCCACGACTAGT
 TCAGCTGCTTGTACGAGCACATCAGGACACCAACGGCGCACCTCCATGGGTGGAACGCAGCAGCAGTTT
 GTGGAGGGCGTGCATGGAGGAGATAGTAGAAGGTGTACTGGAGCTCTCCACATCCTTGTCTGGGACG
 TTCACAACCGGATTGTAATCCGAGGACTCAATACCATTCCATTGTTTGTGCAATTGCTTTATTCTCCCAT
 TGAAAATATCAAAGAGTAGCTGCAGGGTCTCTGTGAACCTGCTCAGGACAAGGAGGCTGCAGAGGCC
 ATTGAAGCTGAGGGAGCCACAGCTCCCCTGACAGAGTACTCCACTCCAGGAATGAAGGCGTGGCAACAT
 ACGCAGCTGCTGTCTATTCCGAATGTCTGAGGACAAGCCACAGGATTACAAGAAGCGGCTTTCAGTCGA
 GCTGACCAGTTCCTCTCAGGACAGAGCCAATGGCTTGGAAATGAGACTGCAGATCTTGGACTGGACATT
 GGTGCCAGGGGAGAAGCCCTTGGATATCGCCAGGATGATCCAGCTACCGTTCTTTCACTCTGGTGGAT
 ACGGCCAGGATGCCTTGGGATGGACCTATGATGGAGCATGAGATGGGTGGCCACCACCCTGGTGTGA
 CTATCCAGTTGATGGGCTGCCTGATCTGGGACAGCCAGGACCTCATGGATGGGCTGCCCCAGGTGAT
 AGCAATCAGCTGGCCTGGTTTGATACTGACCTG**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_001165902
Insert Size: 2346 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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:	<u>NM_001165902.1</u> , <u>NP_001159374.1</u>
RefSeq Size:	3440 bp
RefSeq ORF:	2346 bp
Locus ID:	12387
UniProt ID:	<u>Q02248</u>
Cytogenetics:	9 72.19 cM

Gene Summary:

This gene encodes not only an important cytoplasmic component of the classical cadherin adhesion complex that forms the adherens junction in epithelia and mediates cell-cell adhesion in many other tissues but also a key signaling molecule in the canonical Wnt signaling pathway that controls cell growth and differentiation during both normal development and tumorigenesis. The gene product contains a central armadillo-repeat containing domain through which it binds the cytoplasmic tail of classical cadherins; meanwhile, it also binds alpha-catenin, which further links the cadherin complex to the actin cytoskeleton either directly or indirectly. Beta-catenin is therefore necessary for the adhesive function of classical cadherins. Another key function of this protein is to mediate the canonical Wnt signaling pathway and regulate gene transcription. Without Wnt signal, cytoplasmic beta-catenin that is not associated with the cadherin complex is quickly phosphorylated at the N-terminal Ser/Thr residues by the so called degradation complex containing axin, adenomatous polyposis coli (APC), casein kinase I, and GSK3B, then ubiquitinated by beta-TrCP, and degraded by the proteasome. However, in the presence of Wnt signal, the degradation complex is disrupted and the stabilized cytoplasmic beta-catenin translocates into the nucleus, where it binds various transcription factors and, together with these factors, regulates the transcription of many downstream genes. Mutations of this gene have been linked with various types of tumors. Alternatively spliced variants have been found for this gene. [provided by RefSeq, Sep 2009]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Both variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.