

## Product datasheet for **MR210618L1V**

### **Ctnnb1 (BC053065) Mouse Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Lentiviral Particles   |
| Product Name:             | Ctnnb1 (BC053065) Mouse Tagged ORF Clone Lentiviral Particle   |
| Symbol:                   | Ctnnb1   |
| Synonyms:                 | Bfc; Catnb; Mesc   |
| Mammalian Cell Selection: | None   |
| Vector:                   | pLenti-C-Myc-DDK (PS100064)  |
| Tag:                      | Myc-DDK  |
| ACCN:                     | BC053065   |
| ORF Size:                 | 2343 bp  |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(MR210618).   |
| 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. <a href="#">More info</a> |
| OTI Annotation:           | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| RefSeq:                   | <a href="#">BC053065.1</a>   |
| RefSeq Size:              | 3565 bp  |
| RefSeq ORF:               | 2345 bp  |
| Locus ID:                 | 12387  |
| Cytogenetics:             | 9 72.19 cM   |



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**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]