For Research Use Only

# Phospho-Beta Catenin (Ser33) Recombinant monoclonal antibody



**Purification Method:** 

CloneNo.:

Protein A purification

Recommended Dilutions:

FC (Intra): 0.25 ug per 10^6 cells in a

WB: 1:5000-1:50000

100 µl suspension

Catalog Number:80067-1-RR 13 Publications

#### **Basic Information**

Catalog Number: 80067-1-RR Concentration: 500 μg/ml Source:

Rabbit Isotype: GenBank Accession Number: BC058926

GeneID (NCBI):

ENSEMBL Gene ID: ENSG00000168036 **UNIPROT ID:** P35222

catenin (cadherin-associated protein), beta 1, 88kDa

Calculated MW: 781 aa, 86 kDa Observed MW: 90 kDa

Full Name:

#### Positive Controls:

WB: PC-3 cells, HT-29 cells, Calyculin A treated HT-29 cells, Calyculin A treated PC-3 cells

FC (Intra): Calyculin A treated PC-3 cells, PC-3 cells

# **Applications**

**Tested Applications:** WB, ELISA, FC (Intra) Cited Applications:

Species Specificity: Human, Mouse, Rat Cited Species: human, mouse, rat

# **Background Information**

 $\beta$  -Catenin, also known as CTNNB1, is an evolutionarily conserved, multifunctional intracellular protein.  $\beta$  -Catenin was originally identified in cell adherens junctions (AJs) where it functions to bridge the cytoplasmic domain of cadherins to a-catenin and the actin cytoskeleton. Besides its essential role in the AJs,  $\beta$  -catenin is also a key downstream component of the canonical Wnt pathway that plays diverse and critical roles in embryonic development and adult tissue homeostasis. The Wnt/  $\beta$  -catenin pathway is also involved in the activation of other intracellular messengers such as calcium fluxes, JNK, and SRC kinases. Deregulation of  $\beta$  -catenin activity is associated with multiple diseases including cancers. (PMID: 22617422; 18334222). CK1 phosphorylates  $\,\beta$  -Catenin at Ser45. This phosphorylation event primes  $\beta$  -Catenin for subsequent phosphorylation by GSK-3  $\beta$  . GSK-3  $\beta$ destabilizes  $\beta$  -catenin by phosphorylating it at Ser33, Ser37, and Thr41. Mutations at these sites result in the stabilization of  $\beta$  -Catenin protein levels and have been found in many tumor cell lines .

### **Notable Publications**

Author	Pubmed ID	Journal	Application
Qiang Zuo	34494093	Acta Biochim Biophys Sin (Shanghai)	WB
Yuan Zhao	35720633	Exp Ther Med	WB
Mianmian Liao	34149413	Front Pharmacol	WB

### Storage

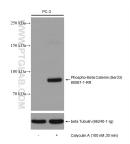
Storage:

Store at -20°C. Stable for one year after shipment.

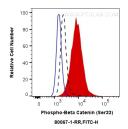
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

## **Selected Validation Data**



Non-treated PC-3 and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 80067-1-RR (Phospho-Beta Catenin (Ser33)antibody) at dilution of 1:10000 incubated at 4°C overnight. The membrane was stripped and re-blotted with beta tubulin (66240-1-lg) antibody as loading control.



1X10^6 PC-3 cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.25 ug Anti-Human Phospho-Beta Catenin (Ser33) (80067-1-RR, Clone:3K1) and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000, or 0.25 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.