Anti-Non-phospho-Beta Catenin (S33/37/T41) Antibody [PSH29-04]

HA724832

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-Fr, IHC-P, IF-Cell, IP
Molecular Wt:	Predicted band size: 85 kDa
Clone number:	PSH29-04

Description: Catenin beta-1, also known as beta-catenin (β-catenin), is a protein that in humans is encoded by the CTNNB1 gene. Beta-catenin is a dual function protein, involved in regulation and coordination of cell–cell adhesion and gene transcription. In humans, the CTNNB1 protein is encoded by the CTNNB1 gene. In Drosophila, the homologous protein is called armadillo. β-catenin is a subunit of the cadherin protein complex and acts as an intracellular signal transducer in the Wnt signaling pathway. It is a member of the catenin protein family and homologous to γ-catenin, also known as plakoglobin. Beta-catenin is widely expressed in many tissues. In cardiac muscle, beta-catenin localizes to adherens junctions in intercalated disc structures, which are critical for electrical and mechanical coupling between adjacent cardiomyocytes. Mutations and overexpression of β-catenin are associated with many cancers, including hepatocellular carcinoma, colorectal carcinoma, lung cancer, malignant breast tumors, ovarian and endometrial cancer. Alterations in the localization and expression levels of beta-catenin have been associated with various forms of heart disease, including dilated cardiomyopathy. β-catenin is regulated and destroyed by the beta-catenin destruction complex, and in particular by the adenomatous polyposis coli (APC) protein, encoded by the tumour-suppressing APC gene. Therefore, genetic mutation of the APC gene is also strongly linked to cancers, and in particular colorectal cancer resulting from familial adenomatous polyposis (FAP).

Immunogen:	Synthetic peptide within human Beta Catenin aa 1-50.
Positive control:	293T (Human embryonic kidney cell) cell lysate, Mouse Pancreas, Human Colon cancer, Human Pancreas, Mouse Liver, Rat Pancreas, Rat Liver, HeLa (Human cervix adenocarcinoma epithelial cell), MEF (Mouse embryonic fibroblast).
Subcellular location:	Cytoplasm
Database links:	SwissProt: P35222 Human | Q02248 Mouse | Q9WU82 Rat
Recommended Dilutions:	
WB	1:2,000
IHC-Fr	1:200
IHC-P	1:2,000
IF-Cell	1:50
IP	1-2μg/sample
Storage Buffer:	1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

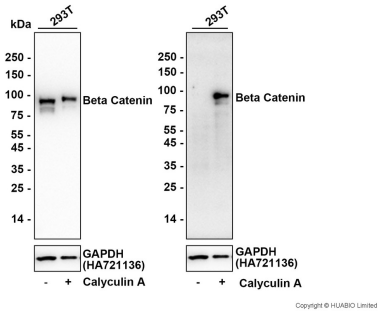


Fig1: Western blot analysis of Non-phospho-Beta Catenin (S33/37/T41) on different lysates with Rabbit anti-Non-phospho-Beta Catenin (S33/37/T41) antibody (HA724832) at 1/2,000 dilution (left) and Rabbit anti-Beta Catenin antibody (ET1601-5) at 1/5,000 dilution (right).

Lane 1: 293T (Human embryonic kidney cell) cell lysate
Lane 2: 293T treated with 100nM Calyculin A for 15 minutes cell lysate

Lysates/proteins at 15 µg/Lane.
Exposure time: 18 seconds; ECL: K1801

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: HA724832, 1/2,000 in primary antibody dilution buffer (K1803), overnight at 4 °C
Secondary antibody: Goat anti-Rabbit IgG-HRP (HA1001), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 85 kDa
Observed band size: 92 kDa

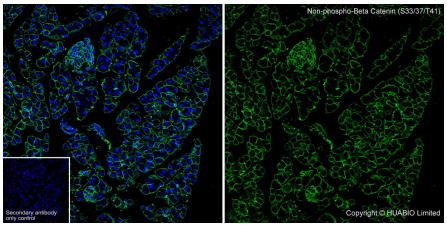


Fig2: Application: Immunofluorescence (IHC-Fr)

Species: Mouse
Tissue: Pancreas
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× TBST
Blocking: 10% normal goat serum + 0.5 % Triton X-100 + 0.3 M Glycine in TBST, 10 minutes at room temperature.
Primary antibody: Non-phospho-Beta Catenin (S33/37/T41) (HA724832, 1/200), overnight at 4°C.
Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 1.5 hours at room temperature.

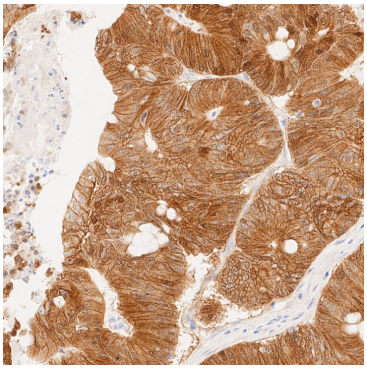


Fig3: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Colon cancer
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95℃.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724832, 1/2,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

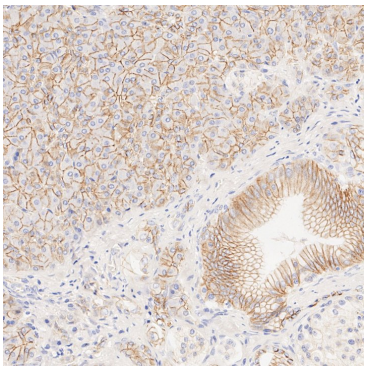


Fig4: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Pancreas
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724832, 1/2,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

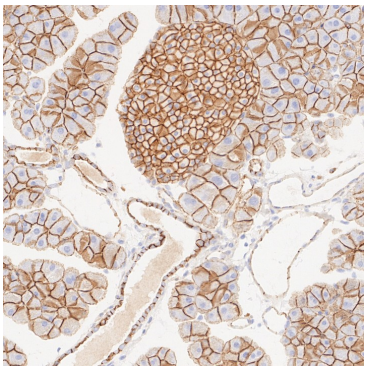


Fig5: Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Pancreas
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724832, 1/2,000, 1 hour at room

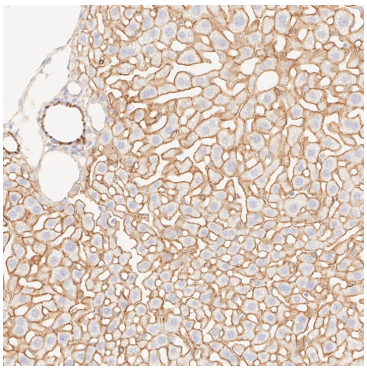


Fig6: Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Liver
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724832, 1/2,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

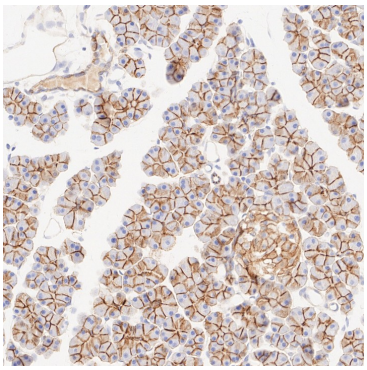


Fig7: Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Pancreas
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724832, 1/2,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

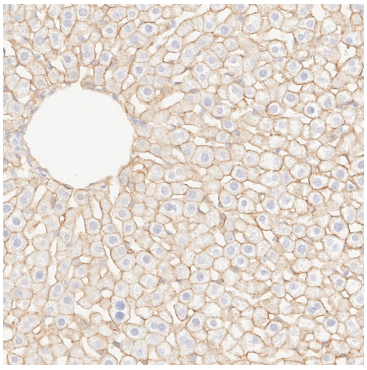


Fig8: Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Liver
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724832, 1/2,000, 1 hour at room

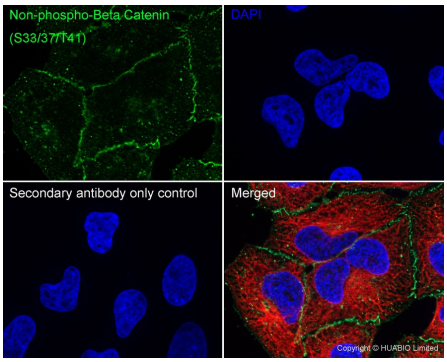


Fig9: Application: Immunocytochemistry (IF-cell)

Species: Human
Sample: HeLa (Human cervix adenocarcinoma epithelial cell)

Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.
Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.
Antibody dilution buffer: 1% BSA in PBST.

Primary antibody: HA724832, 1/50, overnight at 4°C.
Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 45 minutes at room temperature.
Counterstain: Beta tubulin (HA601187, Red), 1/100, overnight at 4℃. The nuclear counterstain was DAPI (Blue).

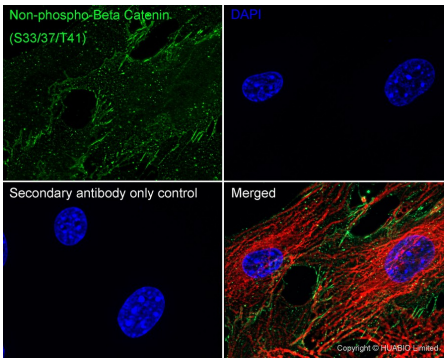


Fig10: Application: Immunocytochemistry (IF-cell)

Species: Mouse
Sample: MEF (Mouse embryonic fibroblast)

Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.
Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.
Antibody dilution buffer: 1% BSA in PBST.

Primary antibody: HA724832, 1/50, overnight at 4°C.
Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 45 minutes at room temperature.
Counterstain: Beta tubulin (HA601187, Red), 1/100, overnight at 4℃. The nuclear counterstain was DAPI (Blue).

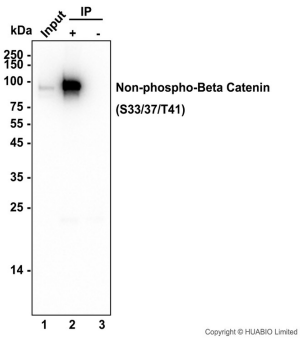


Fig11: Immunoprecipitation (IP)

Non-phospho-Beta Catenin (S33/37/T41) was immunoprecipitated in 0.2 mg HeLa (Human cervix adenocarcinoma epithelial cell) cell lysate with HA724832 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA724832 at 1/2,000 dilution. Anti-Rabbit IgG for IP, AlpSdAbs® VHH(HRP) (025-100-005) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: HeLa cell lysate (input)
Lane 2: HA724832 IP in HeLa cell lysate
Lane 3: Rabbit IgG instead of HA724832 in HeLa cell lysate

Exposure time: 6 seconds
Blocking: 5% NFDM/TBST, 1 hour at room temperature

Primary dilution: HA724832, 1/2,000 in primary antibody dilution buffer (K1803), 2 hours at room temperature

Predicted band size: 85 kDa
Observed band size: 92 kDa

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Liu J et al. Wnt/beta-catenin signalling: function, biological mechanisms, and therapeutic opportunities. Signal Transduct Target Ther. 2022 Jan
2. Yu F et al. Wnt/beta-catenin signaling in cancers and targeted therapies. Signal Transduct Target Ther. 2021 Aug