Anti-Cadherin 3 Antibody [PSH24-84]

HA724479

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, FC, IP
Molecular Wt:	Predicted band size: 91 kDa
Clone number:	PSH24-84

Description: Cadherin-3, also known as P-Cadherin, is a protein that in humans is encoded by the CDH3 gene. This gene is a classical cadherin from the cadherin superfamily. The encoded protein is a calcium-dependent cell-cell adhesion glycoprotein composed of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. This gene is located in a six-cadherin cluster in a region on the long arm of chromosome 16 that is involved in loss of heterozygosity events in breast and prostate cancer. In addition, aberrant expression of this protein is observed in cervical adenocarcinomas.

Immunogen: Recombinant protein within mouse Cadherin 3 aa 51-647.

Positive control: A431 (Human epidermoid carcinoma skin squamous cells) cell lysate, BxPC-3 (Human primary pancreatic adenocarcinoma cells) cell lysate, Mouse placenta (E17) tissue lysate, Mouse embryo tissue lysate.

Subcellular location: Cell membrane.

Database links: SwissProt: P22223 Human | P10287 Mouse | 116777 Rat

Recommended Dilutions:

WB	1:25,000
IHC-P	1:200-1:1,000
FC	1:1,000
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

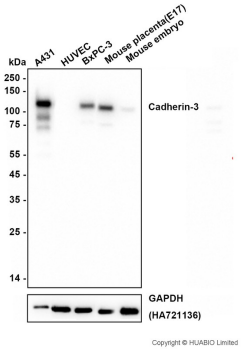


Fig1: Western blot analysis of Cadherin 3 on different lysates with Rabbit anti-Cadherin 3 antibody (HA724479) at 1/25,000 dilution.

Lane 1: A431 (Human epidermoid carcinoma skin squamous cells) cell lysate (15 µg/Lane)
Lane 2: HUVEC (Human umbilical vein endothelial cells) cell lysate (15 µg/Lane)
Lane 3: BxPC-3 (Human primary pancreatic adenocarcinoma cells) cell lysate (15 µg/Lane)
Lane 4: Mouse placenta (E17) tissue lysate (30 µg/Lane)
Lane 5: Mouse embryo tissue lysate (30 µg/Lane)

Exposure time: 4 seconds; ECL: K1801

Negative expression of Cadherin 3 protein in HUVEC cell is consistent with the predicted expression pattern.

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: HA724479, 1/25,000 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: 91 kDa
Observed band size: 120 kDa

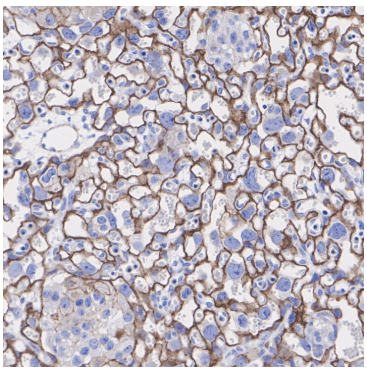


Fig2: Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Placenta
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: HA724479, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

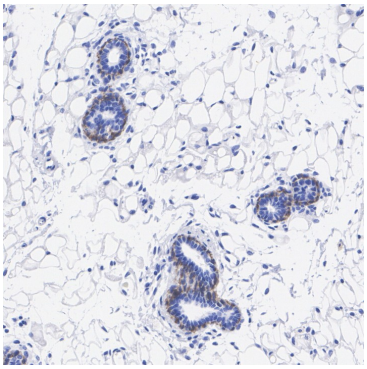


Fig3: Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Breast
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: HA724479, 1/200, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

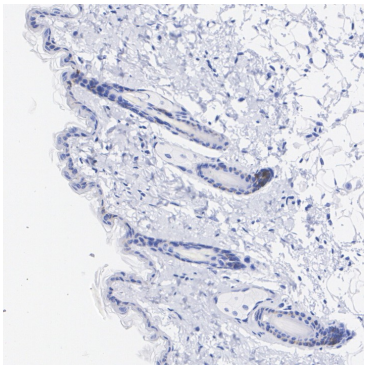


Fig4: Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Skin
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: HA724479, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

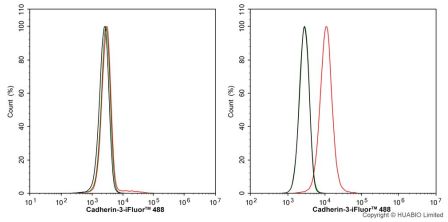


Fig5: Application: Flow Cytometry

Species: Human
Sample: A431 (Human epidermoid carcinoma skin squamous cells)/HUVEC (Human umbilical vein endothelial cells)

Blocking: 1% BSA + 10% normal goat serum, 15 minutes at room temperature.
Antibody dilution buffer: 1x PBS.
Primary antibody: HA724479 (1/1,000) (Red) compared with Rabbit IgG Isotype Control (HA722127, Green), 15 minutes at room temperature.
Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 15 minutes at room temperature.
Negative expression of Cadherin 3 protein in HUVEC cell is consistent with the predicted expression pattern.

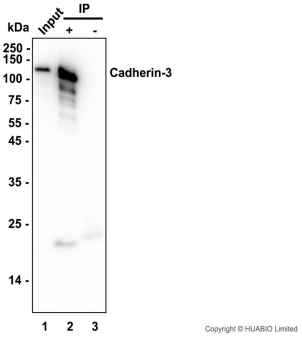


Fig6: Immunoprecipitation (IP)

Cadherin 3 was immunoprecipitated in 0.2 mg A431 (Human epidermoid carcinoma skin squamous cell) cell lysate with HA724479 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA724479 at 1/5,000 dilution. HRP Conjugated Rabbit IgG kappa light chain Mouse Monoclonal Antibody (M1208-2) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: A431 cell lysate (input)
Lane 2: HA724479 IP in A431 cell lysate
Lane 3: Rabbit IgG instead of HA724479 in A431 cell lysate

Exposure time: 2 seconds
Blocking: 5% NFDM/TBST, 1 hour at room temperature

Primary dilution: HA724479, 1/5,000 in primary antibody dilution buffer (K1803), 2 hours at room temperature

Predicted band size: 91 kDa
Observed band size: 120 kDa

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

Background References

1. Martins EP et al. Cadherin-3 is a novel oncogenic biomarker with prognostic value in glioblastoma. Mol Oncol. 2022 Jul
2. Faraj Tabrizi P et al. Alteration of Cadherin 3 Expression and DNA Methylation in Association with Aggressive Renal Cell Carcinoma. Int J Mol Sci. 2023 Nov

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation