Anti-E-Cadherin Antibody

ER63312

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Cell, IHC-Fr, FC
Molecular Wt:	Predicted band size: 97 kDa

Description: Cadherin-1 or Epithelial cadherin (E-cadherin), (not to be confused with the APC/C activator protein CDH1) is a protein that in humans is encoded by the CDH1 gene. Mutations are correlated with gastric, breast, colorectal, thyroid, and ovarian cancers. CDH1 has also been designated as CD324 (cluster of differentiation 324). It is a tumor suppressor gene.

Immunogen: Recombinant protein within mouse E-Cadherin aa 151-730.

Positive control: T-47D cell lysate, HCT 116 cell lysate, 4T1 cell lysate, Mouse pancreas tissue lysate, Rat pancreas tissue lysate, MCF7, 4T1, mouse pancreas tissue, rat pancreas tissue, mouse colon tissue, rat colon tissue.

Subcellular location: Cell junction, adherens junction, Cell membrane, Endosome, Golgi apparatus, trans-Golgi network, Cytoplasm, desmosome.

Database links: SwissProt: P12830 Human | P09803 Mouse | Q9R0T4 Rat

Recommended Dilutions:

WB	1:10,000
IHC-P	1:2,000
IF-Cell	1:500
IHC-Fr	1:1,000
FC	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

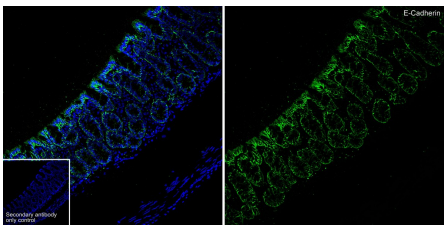

Fig1: Application: IHC-Fr

Species: Mouse

Site: Colon

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: Not required

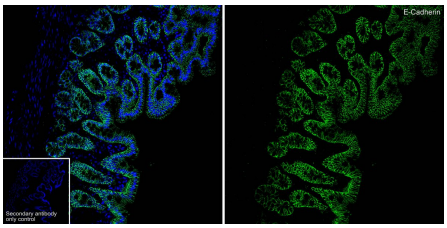

Fig2: Application: IHC-Fr

Species: Rat

Site: Colon

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: Not required

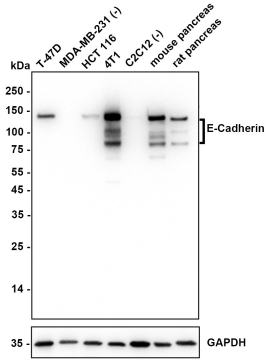

Fig3: Western blot analysis of E-Cadherin on different lysates with Rabbit anti-E-Cadherin antibody (ER63312) at 1/10,000 dilution.

Lane 1: T-47D cell lysate (20 µg/Lane)
Lane 2: MDA-MB-231 cell lysate (negative) (20 µg/Lane)
Lane 3: HCT 116 cell lysate (20 µg/Lane)
Lane 4: 4T1 cell lysate (20 µg/Lane)
Lane 5: C2C12 cell lysate (negative) (20 µg/Lane)
Lane 6: Mouse pancreas tissue lysate (20 µg/Lane)
Lane 7: Rat pancreas tissue lysate (20 µg/Lane)

Predicted band size: 97 kDa
Observed band size: 80-130 kDa
Exposure time: 8 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER63312) at 1/10,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

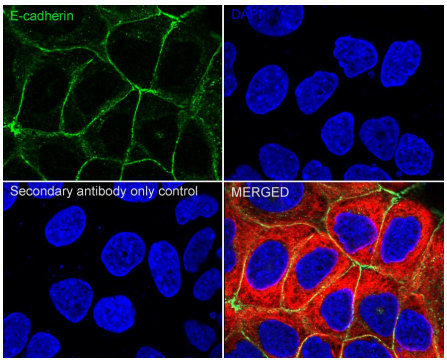

Fig4: Immunocytochemistry analysis of MCF7 cells labeling E-Cadherin with Rabbit anti-E-Cadherin antibody (ER63312) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-E-Cadherin antibody (ER63312) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

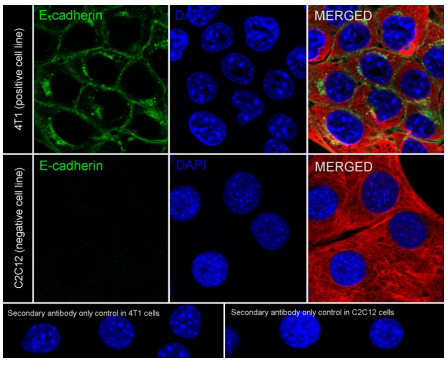

Fig5: Immunocytochemistry analysis of 4T1 cells labeling E-Cadherin with Rabbit anti-E-Cadherin antibody (ER63312) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-E-Cadherin antibody (ER63312) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

C2C12 is a negative control cell.

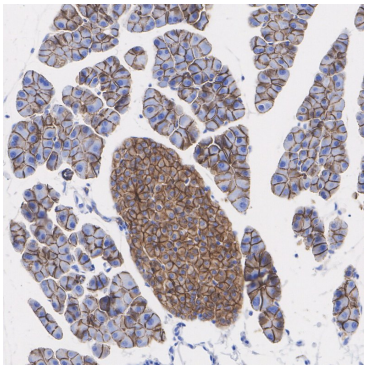

Fig6: Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue with Rabbit anti-E-Cadherin antibody (ER63312) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER63312) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

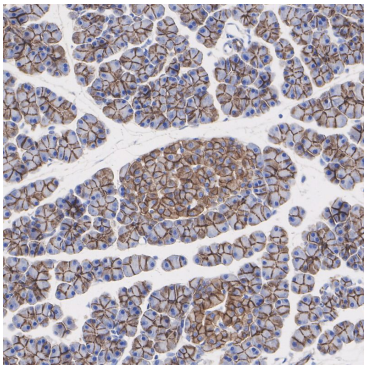

Fig7: Immunohistochemical analysis of paraffin-embedded rat pancreas tissue with Rabbit anti-E-Cadherin antibody (ER63312) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER63312) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

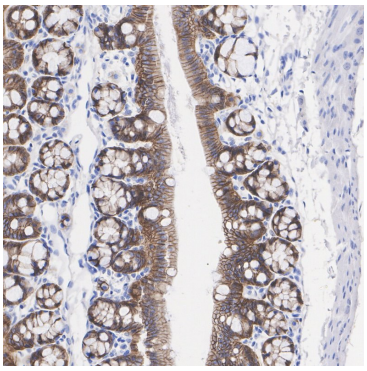

Fig8: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-E-Cadherin antibody (ER63312) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER63312) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

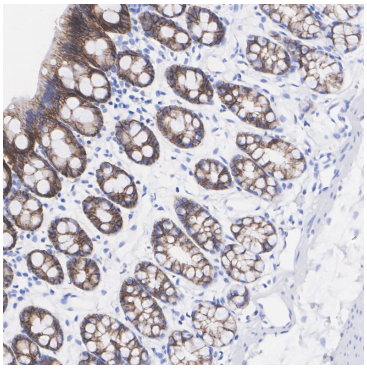

Fig9: Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rabbit anti-E-Cadherin antibody (ER63312) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER63312) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

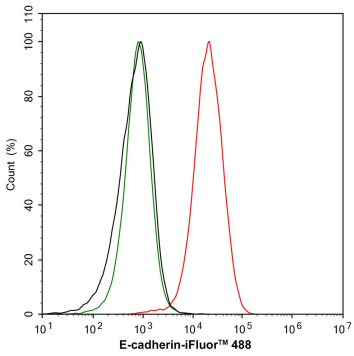

Fig10: Flow cytometric analysis of MCF7 cells labeling E-Cadherin.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (ER63312, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

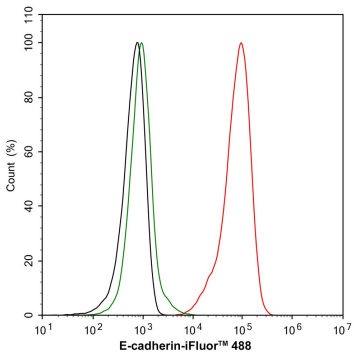

Fig11: Flow cytometric analysis of 4T1 cells labeling E-Cadherin.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (ER63312, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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

Background References

1. Rubtsova SN et al. Dual role of E-cadherin in cancer cells. Tissue Barriers. 2022 Oct
2. Balamurugan K et al. Stabilization of E-cadherin adhesions by COX-2/GSK3beta signaling is a targetable pathway in metastatic breast cancer. JCI Insight. 2023 Mar