Anti-Human E-Cadherin Antibody [PSH09-02] - BSA and Azide free (Capture)

HA723055

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Clone number:	PSH09-02

Description: Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. CDH1 is involved in mechanisms regulating cell-cell adhesions, mobility and proliferation of epithelial cells. Promotes organization of radial actin fiber structure and cellular response to contractile forces, via its interaction with AMOTL2 which facilitates anchoring of radial actin fibers to CDH1 junction complexes at the cell membrane. Has a potent invasive suppressor role. It is a ligand for integrin alpha-E/beta-7. E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production. A cancer predisposition syndrome with increased susceptibility to diffuse gastric cancer. Diffuse gastric cancer is a malignant disease characterized by poorly differentiated infiltrating lesions resulting in thickening of the stomach. Malignant tumors start in the stomach, can spread to the esophagus or the small intestine, and can extend through the stomach wall to nearby lymph nodes and organs. It also can metastasize to other parts of the body. In addition to gastric cancer, most female mutation carriers develop lobular carcinoma of the breast.

Immunogen: Recombinant protein within Human E-cadherin aa 155-707.

Positive control: Recombinant Human E-Cadherin protein (HA210886).

Subcellular location: Cell junction. Cell membrane. Cytoplasm. Endosome. Golgi apparatus. Membrane.

Database links: SwissProt: P12830 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [SY0287] to Human E-Cadherin antibody (Detector) (HA723056) and Recombinant Human E-Cadherin protein (HA210886) as the standard. The reference range value is 156-20,000pg/ml.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

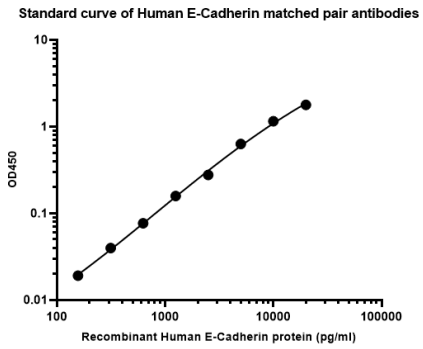

Fig1: Sandwich ELISA analysis of human E-Cadherin matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 50 µl per well of capture antibody (HA723055) diluted in carbonate/bicarbonate buffer, at a concentration of 5 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human E-Cadherin protein (HA210886) starting from 20,000 pg/ml to 0 pg/ml and detect antibody (HA723056, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 50 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

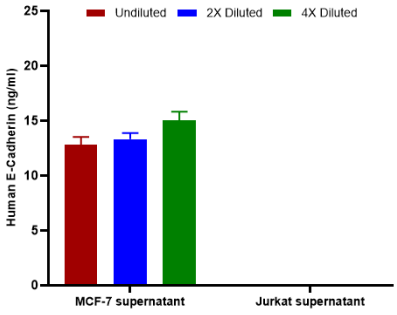

Fig2: Interpolated concentrations of native E-Cadherin in Jurkat and MCF-7 cell culture supernatant.

The concentrations of E-Cadherin were measured in duplicates, interpolated from the E-Cadherin standard curve and corrected for sample dilution. Undiluted samples are MCF-7 cell culture supernatant 50% and Jurkat cell culture supernatnat 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean E-Cadherin concentration was undetectable in Jurkat cell culture supernatant and 13.7 ng/ml in MCF-7 cell culture supernatant.

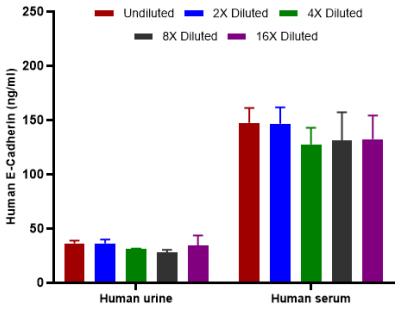

Fig3: Interpolated concentrations of native E-Cadherin in human urine and human serum samples.

The concentrations of E-Cadherin were measured in duplicates, interpolated from the E-Cadherin standard curve and corrected for sample dilution. Undiluted samples are human urine 13% and human serum 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean E-Cadherin concentration was determined to be 33.1 ng/ml in human urine and 137.0 ng/ml in human serum.

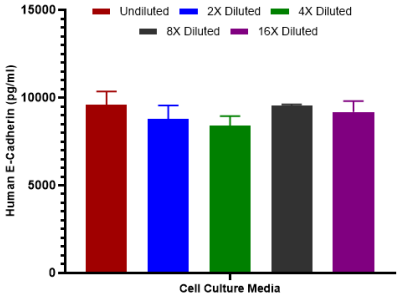

Fig4: Interpolated concentrations of spiked E-Cadherin in human cell culture media samples.

The concentrations of E-Cadherin were measured in duplicates, interpolated from the E-Cadherin standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Background References

1. Meigs T.E., Fedor-Chaiken M., Kaplan D.D., Brackenbury R., Casey P.J. Galpha12 and Galpha13 negatively regulate the adhesive functions of cadherin. J. Biol. Chem. 277:24594-24600 (2002)
2. Agiostratidou G., Muros R.M., Shioi J., Marambaud P., Robakis N.K. The cytoplasmic sequence of E-cadherin promotes non-amyloidogenic degradation of A beta precursors. J. Neurochem. 96:1182-1188 (2006)