Anti-Human FOLR1 Antibody [PSH11-59] - BSA and Azide free (Capture)

HA723354

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Clone number:	PSH11-59

Description: The protein encoded by this gene is a member of the folate receptor family. Members of this gene family bind folic acid and its reduced derivatives, and transport 5-methyltetrahydrofolate into cells. This gene product is a secreted protein that either anchors to membranes via a glycosyl-phosphatidylinositol linkage or exists in a soluble form. Mutations in this gene have been associated with neurodegeneration due to cerebral folate transport deficiency. Due to the presence of two promoters, multiple transcription start sites, and alternative splicing, multiple transcript variants encoding the same protein have been found for this gene. Binds to folate and reduced folic acid derivatives and mediates delivery of 5-methyltetrahydrofolate and folate analogs into the interior of cells. Has high affinity for folate and folic acid analogs at neutral pH. Exposure to slightly acidic pH after receptor endocytosis triggers a conformation change that strongly reduces its affinity for folates and mediates their release. Required for normal embryonic development and normal cell proliferation.

Immunogen: Recombinant protein within Human FOLR1 aa 25-233.

Positive control: Recombinant Human FOLR1 protein (HA211055).

Subcellular location: Cell membrane. Cytoplasmic vesicle. Endosome. Membrane. Secreted.

Database links: SwissProt: P15328 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH11-60] to Human FOLR1 antibody (Detector) (HA723355) and Recombinant Human FOLR1 protein (HA211055) as the standard. The reference range value is 0.625-10 mg/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

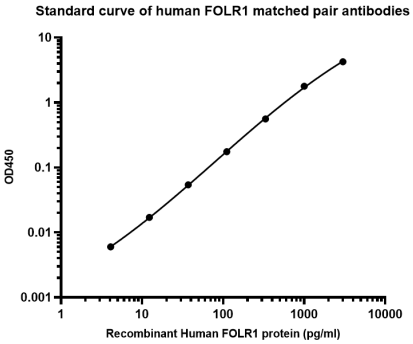

Fig1: Sandwich ELISA analysis of human FOLR1 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA723354) diluted in carbonate/bicarbonate buffer, at a concentration of 2ug/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 FOLR1 protein (HA211055) starting from 3,000 pg/ml to 0 pg/ml and detect antibody (HA723355, Biotin, 0.05 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 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.

Background References

1. Wibowo A.S., Singh M., Reeder K.M., Carter J.J., Kovach A.R., Meng W., Ratnam M., Zhang F., Dann C.E. III. Structures of human folate receptors reveal biological trafficking states and diversity in folate and antifolate recognition. Proc. Natl. Acad. Sci. U.S.A. 110:15180-15188 (2013)
2. Rijnboutt S., Jansen G., Posthuma G., Hynes J.B., Schornagel J.H., Strous G.J. Endocytosis of GPI-linked membrane folate receptor-alpha. J. Cell Biol. 132:35-47 (1996)