Biotin Conjugated Anti-Human VEGF Receptor 1 Antibody [PSH19-23] - BSA and Azide free (Detector)

HA725366B

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Cynomolgus monkey
Applications:	ELISA(Det), ELISA
Clone number:	PSH19-23

Description: Vascular endothelial growth factor receptor 1 is a protein that in humans is encoded by the FLT1 gene. FLT1 is a member of VEGF receptor gene family. It encodes a receptor tyrosine kinase which is activated by VEGF-A, VEGF-B, and placental growth factor. The sequence structure of the FLT1 gene resembles that of the FMS (now CSF1R) gene; hence, Yoshida et al. (1987) proposed the name FLT as an acronym for FMS-like tyrosine kinase. The ablation of VEGFR1 by chemical and genetic means has also recently been found to augment the conversion of white adipose tissue to brown adipose tissue as well as increase brown adipose angiogenesis in mice. Functional genetic variation in FLT1 (rs9582036) has been found to affect non-small cell lung cancer survival.

Conjugate: Biotin-conjugated

Immunogen: Recombinant protein within Human VEGF Receptor 1 aa 27-756 (HA211083).

Positive control: Recombinant Human VEGF Receptor 1 protein (HA211083).

Subcellular location: Cell membrane, Endosome; Secreted; Cytoplasm.

Database links: SwissProt: P17948 Human

Recommended Dilutions:

ELISA(Det)
ELISA
Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH19-22] to Human VEGF Receptor 1 antibody (Capture) (HA725365) and Recombinant Human VEGF Receptor 1 protein (HA211083) as the standard. The reference range value is 39.1-10,000 pg/mL.
Use at an assay dependent concentration.

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.05% Proclean 300.

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: Protein A affinity purified.

Images

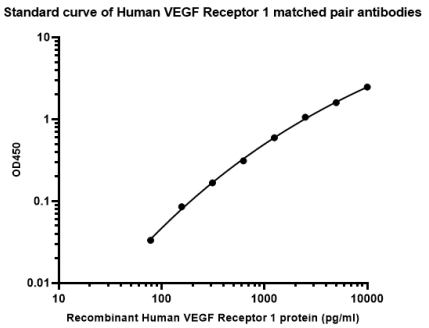

Fig1: Sandwich ELISA analysis of Human VEGF Receptor 1 matched pair antibodies

Capture: HA725365, Human VEGF Receptor 1 Rabbit mAb [PSH19-22]
Detector: HA725366, Human VEGF Receptor 1 Rabbit mAb [PSH19-23]

Elisa assay was performed by coating wells of a 96-well plate with 50 µl per well of capture antibody (HA725365) diluted in carbonate/bicarbonate buffer, at a concentration of 2 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 VEGF Receptor 1 protein (HA211083) starting from 2,000 pg/ml to 0 pg/ml and detect antibody (HA725366, 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.

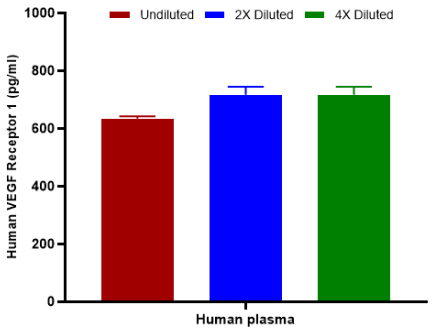

Fig2: Interpolated concentrations of native VEGFR1(FLT1) in human plasma samples.

Capture: HA725365, Human VEGF Receptor 1 Rabbit mAb [PSH19-22]
Detector: HA725366, Human VEGF Receptor 1 Rabbit mAb [PSH19-23]

The concentrations of VEGFR1(FLT1) were measured in duplicates, interpolated from the VEGFR1(FLT1) standard curve and corrected for sample dilution. Undiluted samples are human plasma 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean VEGFR1(FLT1) concentration was determined to be 712.28 pg/ml in human plasma.

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

Background References

1. Uemura A et al. VEGFR1 signaling in retinal angiogenesis and microinflammation. Prog Retin Eye Res. 2021 Sep
2. Amano H et al. VEGFR1-tyrosine kinase signaling in pulmonary fibrosis. Inflamm Regen. 2021 Jun