Anti-Human/Monkey VEGFR3 / FLT4 Antibody [PSH22-17] - BSA and Azide free (Detector)

HA724278

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Cynomolgus monkey
Applications:	ELISA(Det)
Clone number:	PSH22-17

Description: Fms-related tyrosine kinase 4, also known as FLT4, is a protein which in humans is encoded by the FLT4 gene. This gene encodes a tyrosine kinase receptor for vascular endothelial growth factors C and D. The protein is thought to be involved in lymphangiogenesis and maintenance of the lymphatic endothelium. Mutations in this gene cause hereditary lymphedema type IA.

Immunogen: Recombinant protein within Human VEGFR3 / FLT4 aa 25-775 (HA211107).

Positive control: Recombinant Human VEGFR3 / FLT4 protein (HA211107).

Subcellular location: Cell membrane, Cytoplasm, Nucleus.

Database links: SwissProt: P35916 Human

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH22-16] to Human/Monkey VEGFR3 / FLT4 antibody (Capture) (HA724277) and Recombinant Human VEGFR3 / FLT4 protein (HA211107) as the standard. The reference range value is 78.1-10,000 pg/mL.

Storage Buffer: 1*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

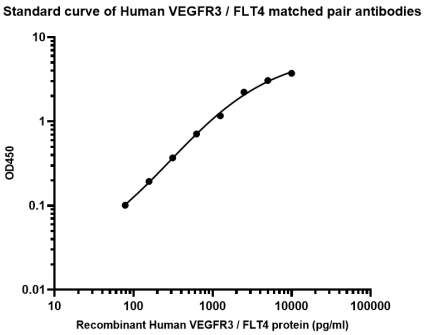

Fig1: Sandwich ELISA analysis of Human VEGFR3 matched pair antibodies

Capture: HA724277, Human/Monkey VEGFR3 / FLT4 Rabbit mAb [PSH22-16]
Detector: HA724278, Human/Monkey VEGFR3 / FLT4 Rabbit mAb [PSH22-17]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA724277) diluted in carbonate/bicarbonate buffer, at a concentHumanion of 2 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.2% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human VEGFR3 / FLT4 protein (HA211107) starting from 10,000 pg/ml to 0 pg/ml and detect antibody (HA724278, Biotin, 0.2 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 SubstHumane for 10 minutes at room tempeHumanure in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

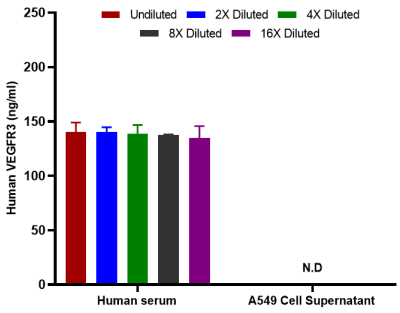

Fig2: Interpolated concentrations of native VEGFR3 in human serum samples and A549 cell culture supernatant.

Capture: HA724277, Human/Monkey VEGFR3 / FLT4 Rabbit mAb [PSH22-16]
Detector: HA724278, Human/Monkey VEGFR3 / FLT4 Rabbit mAb [PSH22-17]

The concentrations of VEGFR3 were measured in duplicates, interpolated from the VEGFR3 standard curve and corrected for sample dilution. Undiluted samples are human serum 5% and A549 cell culture supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean VEGFR3 concentration was determined to be 138.3 ng/ml in human serum and undetectable in A549 cell culture supernatant.

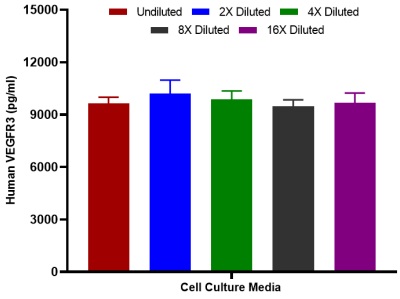

Fig3: Interpolated concentrations of spiked VEGFR3 in human cell culture media samples.

Capture: HA724277, Human/Monkey VEGFR3 / FLT4 Rabbit mAb [PSH22-16]
Detector: HA724278, Human/Monkey VEGFR3 / FLT4 Rabbit mAb [PSH22-17]

The concentrations of VEGFR3 were measured in duplicates, interpolated from the VEGFR3 standard curves and corrected for sample dilution. Diluted samples are as follows: 50% cell culture media with FBS. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

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

Background References

1. Ma L et al. FLT4/VEGFR3 activates AMPK to coordinate glycometabolic reprogramming with autophagy and inflammasome activation for bacterial elimination. Autophagy. 2022 Jun
2. Monaghan RM et al. FLT4 causes developmental disorders of the cardiovascular and lymphovascular systems via pleiotropic molecular mechanisms. Cardiovasc Res. 2024 Sep