Anti-Human TNF Receptor II Antibody [PSH11-92] - BSA and Azide free (Capture)

HA723402

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Clone number:	PSH11-92

Description: Tumor necrosis factor receptor 2 (TNFR2), also known as tumor necrosis factor receptor superfamily member 1B (TNFRSF1B) and CD120b, is one of two membrane receptors that binds tumor necrosis factor-alpha (TNFα). Like its counterpart, tumor necrosis factor receptor 1 (TNFR1), the extracellular region of TNFR2 consists of four cysteine-rich domains which allow for binding to TNFα. TNFR1 and TNFR2 possess different functions when bound to TNFα due to differences in their intracellular structures, such as TNFR2 lacking a death domain (DD). The protein encoded by this gene is a member of the tumor necrosis factor receptor superfamily, which also contains TNFRSF1A. This protein and TNF-receptor 1 form a heterocomplex that mediates the recruitment of two anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. The function of IAPs in TNF-receptor signalling is unknown, however, c-IAP1 is thought to potentiate TNF-induced apoptosis by the ubiquitination and degradation of TNF-receptor-associated factor 2 (TRAF2), which mediates anti-apoptotic signals. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating antioxidative pathways.

Immunogen: Recombinant protein within Human TNF Receptor II aa 23-257.

Positive control: Recombinant Human TNF Receptor II protein (HA210950).

Subcellular location: Cell membrane; Secreted.

Database links: SwissProt: P20333 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH11-93] to Human TNF Receptor II antibody (Detector) (HA723403) and Recombinant Human TNF Receptor II protein (HA210950) as the standard. The reference range value is 15.6-2,000 pg/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

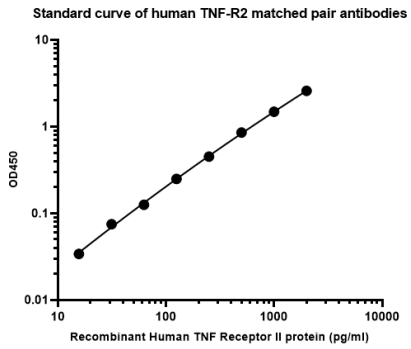

Fig1: Sandwich ELISA analysis of human TNF-R2 matched pair antibodies

Capture: HA723402, Human TNF Receptor II Rabbit mAb [PSH11-92]
Detector: HA723403, Human TNF Receptor II Rabbit mAb [PSH11-93]

Elisa assay was performed by coating wells of a 96-well plate with 50 µl per well of capture antibody (HA723402) 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 TNF Receptor II protein (HA210950) starting from 2,000 pg/ml to 0 pg/ml and detect antibody (HA723403, 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.

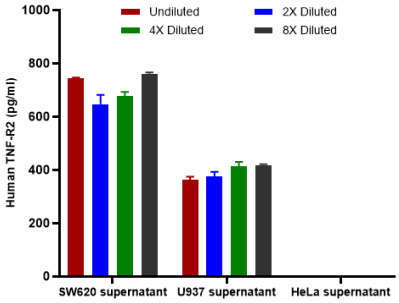

Fig2:
Interpolated concentrations of native TNF-R2 in U937, SW620 and HeLa cell culture supernatant.

Capture: HA723402, Human TNF Receptor II Rabbit mAb [PSH11-92]
Detector: HA723403, Human TNF Receptor II Rabbit mAb [PSH11-93]

The concentrations of TNF-R2 were measured in duplicates, interpolated from the TNF-R2 standard curve and corrected for sample dilution. Undiluted samples are U937 cell culture supernatant 100%, SW620 cell culture supernatant 100% and HeLa cell culture supernatant. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TNF-R2 concentration was determined to be 392.5 pg/ml in U937 cell culture supernatant, 707.2 pg/ml in SW620 cell culture supernatant and undetectable in HeLa cell culture supernatant.

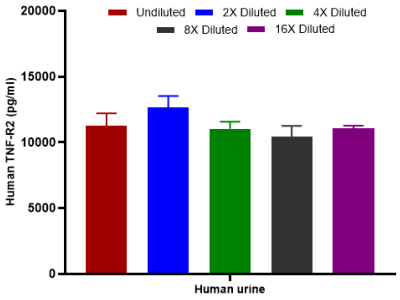

Fig3: Interpolated concentrations of native TNF-R2 in human urine samples.

Capture: HA723402, Human TNF Receptor II Rabbit mAb [PSH11-92]
Detector: HA723403, Human TNF Receptor II Rabbit mAb [PSH11-93]

The concentrations of TNF-R2 were measured in duplicates, interpolated from the TNF-R2 standard curve and corrected for sample dilution. Undiluted samples are human urine 20%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TNF-R2 concentration was determined to be 11,279 pg/ml in human urine.

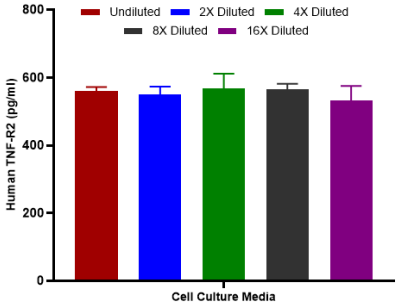

Fig4: Interpolated concentrations of spiked TNF-R2 in human cell culture media samples.

Capture: HA723402, Human TNF Receptor II Rabbit mAb [PSH11-92]
Detector: HA723403, Human TNF Receptor II Rabbit mAb [PSH11-93]

The concentrations of TNF-R2 were measured in duplicates, interpolated from the TNF-R2 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 25%. 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. Gao Y et al. Single-cell transcriptomics identify TNFRSF1B as a novel T-cell exhaustion marker for ovarian cancer. Clin Transl Med. 2023 Sep
2. Carvalho BF et al. TNFRSF1B Gene Variants in Clinicopathological Aspects and Prognosis of Patients with Cutaneous Melanoma. Int J Mol Sci. 2024 Mar