



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Clone number:	PSH11-83

Description: Pentraxin-related protein PTX3 also known as TNF-inducible gene 14 protein (TSG-14) is a protein that in humans is encoded by the PTX3 gene. Pentraxin 3 (ptx3) is a member of the pentraxin superfamily. This super family characterized by cyclic multimeric structure. PTX3 is rapidly produced and released by several cell types, in particular by mononuclear phagocytes, dendritic cells (DCs), fibroblasts and endothelial cells in response to primary inflammatory signals [e.g., toll-like receptor (TLR) engagement, TNF α , IL-1 β]. PTX3 binds with high affinity to the complement component C1q, the extracellular matrix component TNF α induced protein 6 (TNFAIP6; also called TNF-stimulated gene 6, TSG-6) and selected microorganisms, including *Aspergillus fumigatus* and *Pseudomonas aeruginosa*. PTX3 activates the classical pathway of complement activation and facilitates pathogen recognition by macrophages and DCs.

Immunogen: Recombinant protein within Human PTX3 aa 18-381.

Positive control: Recombinant Human Pentraxin 3 / PTX3 protein (HA210943).

Subcellular location: Secreted.

Database links: SwissProt: P26022 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH11-84] to Human Pentraxin 3 / PTX3 antibody (Detector) (HA723388) and Rabbit monoclonal [PSH11-85] to Human Pentraxin 3 / PTX3 antibody (Detector) (HA723390) and Recombinant Human Pentraxin 3 / PTX3 protein (HA210943) as the standard. The reference range value is 39.1-5,000 pg/ml.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4 $^{\circ}$ C after thawing. Aliquot store at -20 $^{\circ}$ C. Avoid repeated freeze / thaw cycles.

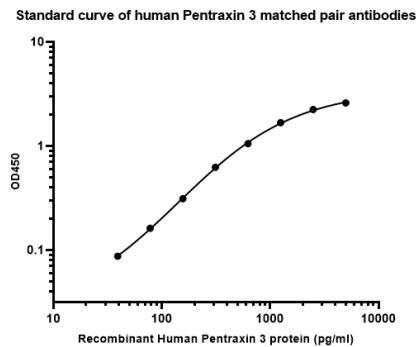
Purity: Protein A affinity purified.

Images

Fig1: Sandwich ELISA analysis of human Pentraxin 3 / PTX3 matched pair antibodies

Capture: HA723387, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-83]

Detector: HA723388, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-84]

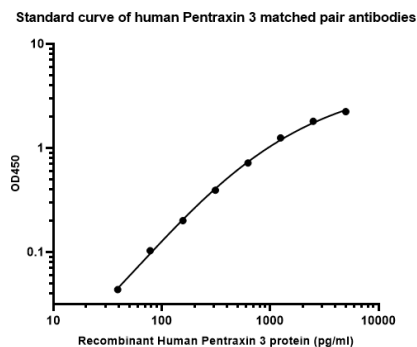


Elisa assay was performed by coating wells of a 96-well plate with 50 μ l per well of capture antibody (HA723387) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/mL overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human Pentraxin 3 / PTX3 protein (HA210943) starting from 5,000 pg/ml to 0 pg/ml and detect antibody (HA723388, Biotin, 0.1 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 50 μ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ C 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: Sandwich ELISA analysis of human Pentraxin 3 / PTX3 matched pair antibodies

Capture: HA723387, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-83]

Detector: HA723390, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-85]



Elisa assay was performed by coating wells of a 96-well plate with 50 μ l per well of capture antibody (HA723387) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/mL overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human Pentraxin 3 / PTX3 protein (HA210943) starting from 5,000 pg/ml to 0 pg/ml and detect antibody (HA723390, Biotin, 0.1 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 50 μ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ C 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.

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

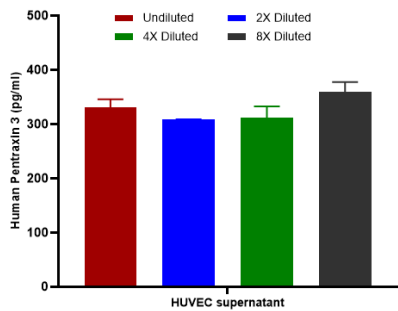


Fig3: Interpolated concentrations of native Pentraxin 3 in HUVEC cell culture supernatant.

Capture: HA723387, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-83]
Detector: HA723388, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-84]

The concentrations of Pentraxin 3 were measured in duplicates, interpolated from the Pentraxin 3 standard curve and corrected for sample dilution. Undiluted samples are HUVEC cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Pentraxin 3 concentration was determined to be 327.5 pg/ml in HUVEC cell culture supernatant.

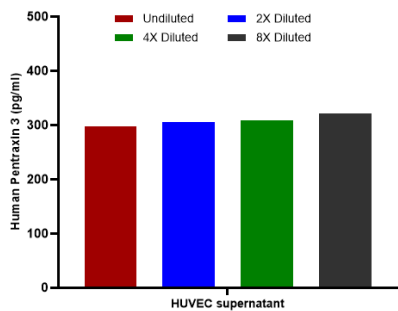


Fig4: Interpolated concentrations of native Pentraxin 3 in HUVEC cell culture supernatant.

Capture: HA723387, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-83]
Detector: HA723390, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-85]

The concentrations of Pentraxin 3 were interpolated from the Pentraxin 3 standard curve and corrected for sample dilution. Undiluted samples are HUVEC cell culture supernatant 100%. The mean Pentraxin 3 concentration was determined to be 308.1 pg/ml in HUVEC cell culture supernatant.

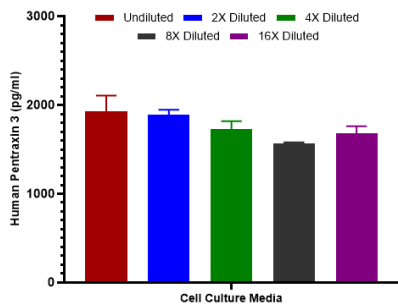


Fig5: Interpolated concentrations of spiked Pentraxin 3 in human cell culture media samples.

Capture: HA723387, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-83]
Detector: HA723388, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-84]

The concentrations of Pentraxin 3 were measured in duplicates, interpolated from the Pentraxin 3 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).

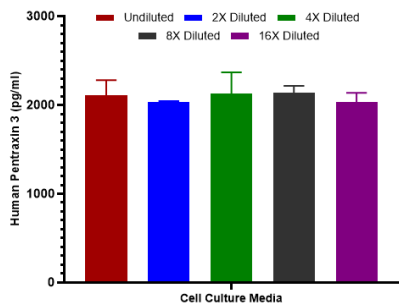


Fig6: Interpolated concentrations of spiked Pentraxin 3 in human cell culture media samples.

Capture: HA723387, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-83]

Detector: HA723390, Human Pentraxin 3 / PTX3 Rabbit mAb [PSH11-85]

The concentrations of Pentraxin 3 were measured in duplicates, interpolated from the Pentraxin 3 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).

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

Background References

1. Lathoria K et al. PRMT1 driven PTX3 regulates ferritinophagy in glioma. Autophagy. 2023 Jul
2. Zhang H et al. PTX3 mediates the infiltration, migration, and inflammation-resolving-polarization of macrophages in glioblastoma. CNS Neurosci Ther. 2022 Nov

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