

## Anti-Human NPTX2 Antibody [PSH21-45] - BSA and Azide free (Capture)

# HA725187



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	ELISA(Cap)
<b>Clone number:</b>	PSH21-45

**Description:** This gene encodes a member of the family of neuronal petraxins, synaptic proteins that are related to C-reactive protein. This protein is involved in excitatory synapse formation. It also plays a role in clustering of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA)-type glutamate receptors at established synapses, resulting in non-apoptotic cell death of dopaminergic nerve cells. Up-regulation of this gene in Parkinson disease (PD) tissues suggests that the protein may be involved in the pathology of PD. Likely to play role in the modification of cellular properties that underlie long-term plasticity. Binds to agar matrix in a calcium-dependent manner.

**Immunogen:** Recombinant protein within Recombinant Human NPTX2 aa 16-431 (HA211175).

**Positive control:** Recombinant Human NPTX2 protein (HA211175).

**Subcellular location:** Secreted.

**Database links:** SwissProt: P47972 Human

### Recommended Dilutions:

**ELISA(Cap)** Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH21-46] to Human NPTX2 antibody (Detector) (HA725188) and Recombinant Human NPTX2 protein (HA211175) as the standard. The reference range value is 39.1-20,000 pg/mL.

**Storage Buffer:** 1\*PBS (pH7.4).

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

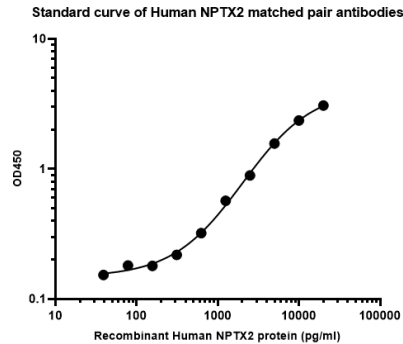
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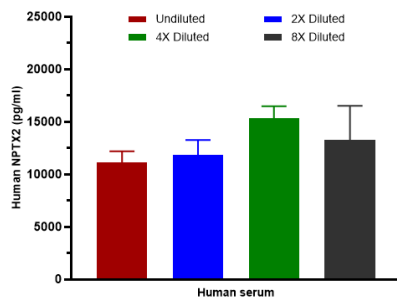
## Images

**Fig1:** Sandwich ELISA analysis of Human NPTX2 matched pair antibodies

Capture: HA725187, Human NPTX2 Rabbit mAb [PSH21-45]  
 Detector: HA725188, Human NPTX2 Rabbit mAb [PSH21-46]



Elisa assay was performed by coating wells of a 96-well plate with 50  $\mu$ l per well of capture antibody (HA725187) diluted in carbonate/bicarbonate buffer, at a concentration of 2  $\mu$ g/ml overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150  $\mu$ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human NPTX2 protein (HA211175) starting from 20,000 pg/ml to 0 pg/ml and detect antibody (HA725188, Biotin, 0.2  $\mu$ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 50  $\mu$ 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:** Interpolated concentrations of native NPTX2 in human serum samples.

Capture: HA725187, Human NPTX2 Rabbit mAb [PSH21-45]  
 Detector: HA725188, Human NPTX2 Rabbit mAb [PSH21-46]

The concentrations of NPTX2 measured in duplicate and interpolated from the NPTX2 standard curve and corrected for sample dilution. Undiluted samples are human serum 50%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean NPTX2 concentration was determined to be 12,890 pg/ml in human serum.

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

## Background References

1. Hruska-Plochan M et al. A model of human neural networks reveals NPTX2 pathology in ALS and FTL. Nature. 2024 Feb
2. Kang T et al. NPTX2 Promotes Epithelial-Mesenchymal Transition in Cutaneous Squamous Cell Carcinoma through METTL3-Mediated N6-Methyladenosine Methylation of SNAIL. J Invest Dermatol. 2023 Jun

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