

Anti-GFAP Antibody [PSH05-16] - BSA and Azide free (Capture)

HA722234



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	ELISA(Cap)
Molecular Wt:	Predicted band size: 50 kDa
Clone number:	PSH05-16

Description: Glial fibrillary acidic protein (GFAP) is a protein that is encoded by the GFAP gene in humans. It is a type III intermediate filament (IF) protein that is expressed by numerous cell types of the central nervous system (CNS), including astrocytes and ependymal cells during development. GFAP has also been found to be expressed in glomeruli and peritubular fibroblasts taken from rat kidneys,[8] Leydig cells of the testis in both hamsters and humans, human keratinocytes, human osteocytes and chondrocytes and stellate cells of the pancreas and liver in rats. GFAP is closely related to the other three non-epithelial type III IF family members, vimentin, desmin and peripherin, which are all involved in the structure and function of the cell's cytoskeleton. GFAP is thought to help to maintain astrocyte mechanical strength as well as the shape of cells, but its exact function remains poorly understood, despite the number of studies using it as a cell marker.

Immunogen: Synthetic peptide within Human GFAP aa 1-50 / 432.

Positive control: Recombinant human GFAP protein.

Subcellular location: Cytoplasm.

Database links: SwissProt: P14136 Human | P03995 Mouse | P47819 Rat

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Mouse monoclonal [PSH05-17] to GFAP (Detector) (HA601342). The reference range value is 823-200,000pg/ml.

Storage Buffer: 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.

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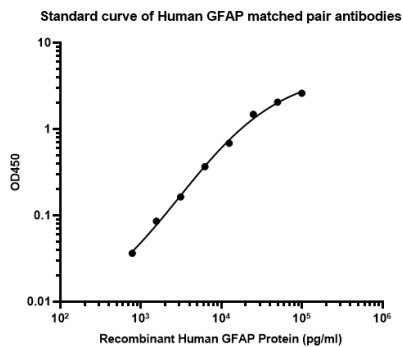
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Technical:0086-571-89986345

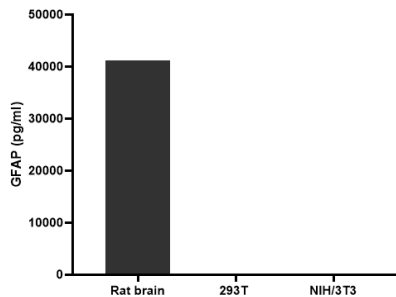
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Images

Fig1: Sandwich ELISA analysis of Human GFAP matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA722234) diluted in carbonate/bicarbonate buffer, at a concentration of 5 μ g/ml overnight at 4°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 GFAP protein starting from 100000 pg/ml to 0 pg/ml and detect antibody (HA601342, Biotin, 0.2 μ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 100 μ l per well of SA-HRP for 0.5 hour at 30°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:** The concentrations of GFAP were interpolated from the GFAP standard curve and corrected for sample dilution. The mean GFAP concentration was determined to be 41.29 ng/ml in rat brain tissue extract. There was no detectable signal in 293T and NIH/3T3 cell extract.

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

Background References

1. Abdelhak A et al. Blood GFAP as an emerging biomarker in brain and spinal cord disorders. Nat Rev Neurol. 2022 Mar
2. Kim KY et al. GFAP as a Potential Biomarker for Alzheimer's Disease: A Systematic Review and Meta-Analysis. Cells. 2023 May

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