

Anti-PDE10A Antibody [PSH03-61]

HA722020



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 88 kDa
Clone number:	PSH03-61

Description: The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase family. It plays a role in signal transduction by regulating the intracellular concentration of cyclic nucleotides. This protein can hydrolyze both cAMP and cGMP to the corresponding nucleoside 5' monophosphate, but has higher affinity for cAMP, and is more efficient with cAMP as substrate. Alternatively spliced transcript variants have been described for this gene. Plays a role in signal transduction by regulating the intracellular concentration of cyclic nucleotides. Can hydrolyze both cAMP and cGMP, but has higher affinity for cAMP and is more efficient with cAMP as substrate. May play a critical role in regulating cAMP and cGMP levels in the striatum, a region of the brain that contributes to the control of movement and cognition.

Immunogen: Recombinant protein within human PDE10A aa 400-779 / 779.

Positive control: Human brain tissue lysate, mouse brain tissue lysate, mouse testis tissue lysate, rat brain tissue lysate, mouse brain tissue, rat brain tissue, SH-SY5Y.

Subcellular location: Cytoplasm, cytosol.

Database links: SwissProt: Q9Y233 Human | Q8CA95 Mouse | Q9QYJ6 Rat

Recommended Dilutions:

WB	1:2,000
IHC-P	1:20,000
FC	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

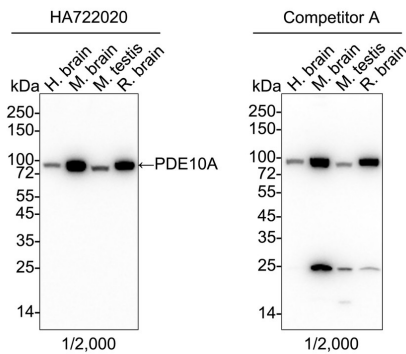
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Images

Fig1: Western blot analysis of PDE10A on different lysates with Rabbit anti-PDE10A antibody (HA722020) at 1/2,000 dilution and competitor's antibody at 1/2,000 dilution.

Lane 1: Human brain tissue lysate
Lane 2: Mouse brain tissue lysate
Lane 3: Mouse testis tissue lysate
Lane 4: Rat brain tissue lysate



Lysates/proteins at 40 µg/Lane.

Predicted band size: 88 kDa

Observed band size: 88 kDa

Exposure time: 24 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722020) at 1/2,000 dilution and competitor's antibody at 1/2,000 dilution were used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

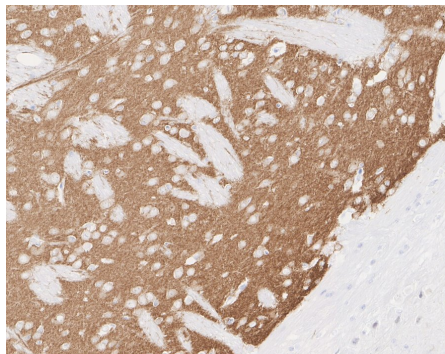


Fig2: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-PDE10A antibody (HA722020) at 1/20,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA722020) at 1/20,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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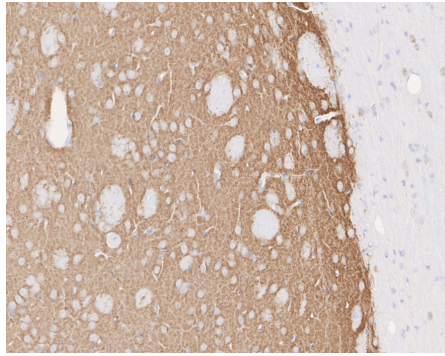


Fig3: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-PDE10A antibody (HA722020) at 1/20,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA722020) at 1/20,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

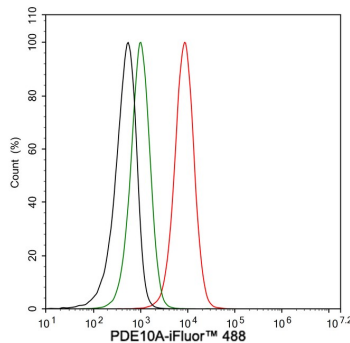


Fig4: Flow cytometric analysis of SH-SY5Y cells labeling PDE10A.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA722020, 1µg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4°C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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

Background References

1. Chen S et al. PDE10A Inactivation Prevents Doxorubicin-Induced Cardiotoxicity and Tumor Growth. *Circ Res.* 2023 Jul
2. Menniti FS et al. PDE10A Inhibitors-Clinical Failure or Window Into Antipsychotic Drug Action? *Front Neurosci.* 2021 Jan

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