Anti-Dopamine D2 Receptor Antibody [PSH09-94] - BSA and Azide free

HA751325

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-Fr, IHC-P
Molecular Wt:	Predicted band size: 51 kDa
Clone number:	PSH09-94

Description: Dopamine receptor D2, also known as D2R, is a protein that, in humans, is encoded by the DRD2 gene. The dopamine D2 receptor is the main receptor for most antipsychotic drugs. The structure of DRD2 in complex with the atypical antipsychotic risperidone has been determined. D2 receptors are coupled to Gi subtype of G protein. This G protein-coupled receptor inhibits adenylyl cyclase activity. In mice, regulation of D2R surface expression by the neuronal calcium sensor-1 (NCS-1) in the dentate gyrus is involved in exploration, synaptic plasticity and memory formation. Studies have shown potential roles for D2R in retrieval of fear memories in the prelimbic cortex and in discrimination learning in the nucleus accumbens. In flies, activation of the D2 autoreceptor protected dopamine neurons from cell death induced by MPP+, a toxin mimicking Parkinson's disease pathology. While optimal dopamine levels favor D1R cognitive stabilization, it is the D2R that mediates the cognitive flexibility in humans.

Immunogen: Recombinant protein within human Dopamine D2 Receptor aa 214-373.

Positive control: Human cerebral cortex (blood vessel) tissue, mouse brain (blood vessel) tissue, mouse striatum tissue, rat brain (blood vessel) tissue, rat striatum tissue.

Subcellular location: Cell membrane, Golgi apparatus membrane.

Database links: SwissProt: P14416 Human | P61168 Mouse | P61169 Rat

Recommended Dilutions:

IHC-Fr	1:500
IHC-P	1:200

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

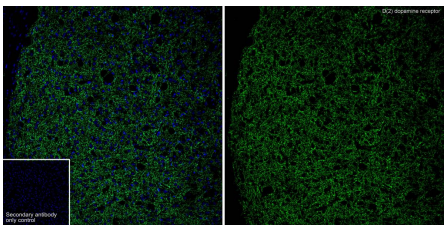

Fig1: Immunofluorescence analysis of frozen mouse striatum tissue with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/500 dilution.

The section was not undergone antigen retrieval. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA751325, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

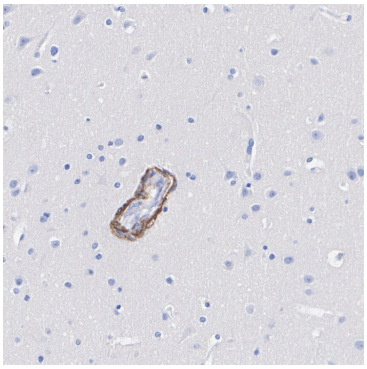

Fig2: Immunohistochemical analysis of paraffin-embedded human cerebral cortex (blood vessel) tissue with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751325) at 1/200 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.

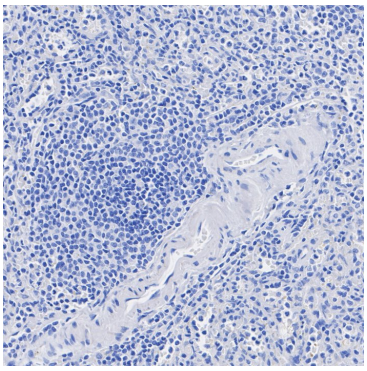

Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue (negative) with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751325) at 1/200 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.

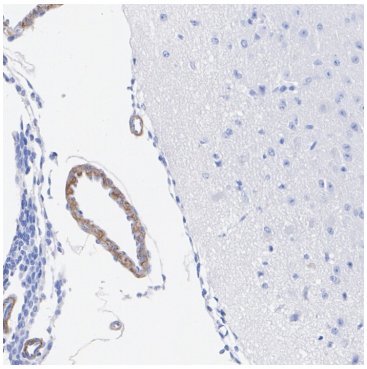

Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain (blood vessel) tissue with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751325) at 1/200 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.

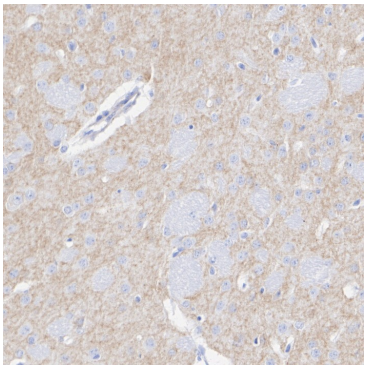

Fig5: Immunohistochemical analysis of paraffin-embedded mouse striatum tissue with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751325) at 1/200 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.

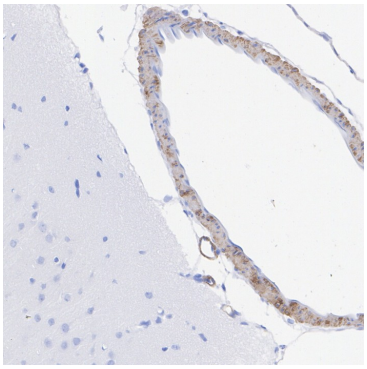

Fig6: Immunohistochemical analysis of paraffin-embedded rat brain (blood vessel) tissue with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751325) at 1/200 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.

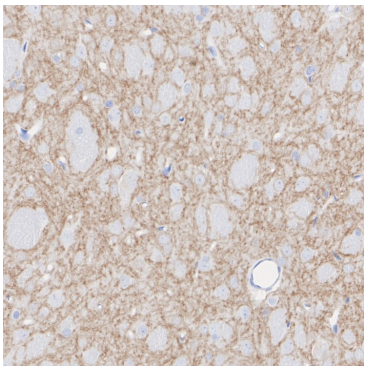

Fig7: Immunohistochemical analysis of paraffin-embedded rat striatum tissue with Rabbit anti-Dopamine D2 Receptor antibody (HA751325) at 1/200 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751325) at 1/200 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.

Background References

1. Bliźniewska-Kowalska KM et al. Dopamine D2 receptor partial agonists in the treatment of schizophrenia -example of brexpiprazole. Psychiatr Pol. 2024 Aug
2. Yin N et al. Dopamine D2 Receptor-Mediated Modulation of Rat Retinal Ganglion Cell Excitability. Neurosci Bull. 2020 Mar