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DRD4 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8760C

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P21917
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	43901
Antigen Region	365-391

Additional Information

Gene ID	1815
Other Names	D(4) dopamine receptor, D(2C) dopamine receptor, Dopamine D4 receptor, DRD4
Target/Specificity	This DRD4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 365-391 amino acids from the Central region of human DRD4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DRD4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DRD4
Function	Dopamine receptor responsible for neuronal signaling in the mesolimbic system of the brain, an area of the brain that regulates emotion and complex behavior. Activated by dopamine, but also by epinephrine and norepinephrine, and by numerous synthetic agonists and drugs

(PubMed:16423344, PubMed:27659709, PubMed:29051383, PubMed:9003072). Agonist binding triggers signaling via G proteins that inhibit adenylyl cyclase (PubMed:16423344, PubMed:27659709, PubMed:29051383, PubMed:7512953, PubMed:7643093). Modulates the circadian rhythm of contrast sensitivity by regulating the rhythmic expression of NPAS2 in the retinal ganglion cells (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Highly expressed in retina. Detected at much lower levels in brain, in amygdala, thalamus, hypothalamus, cerebellum and pituitary.

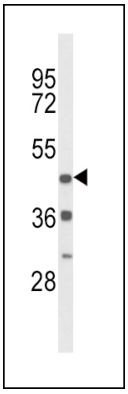
Background

DRD4 is the D4 subtype of the dopamine receptor. The D4 subtype is a G-protein coupled receptor which inhibits adenylyl cyclase. It is a target for drugs which treat schizophrenia and Parkinson disease.

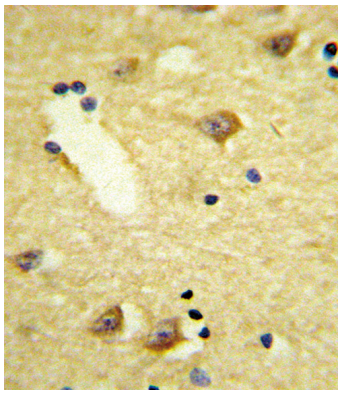
References

Livingstone,C.D., et.al., Biochem. J. 287 (PT 1), 277-282 (1992)

Images

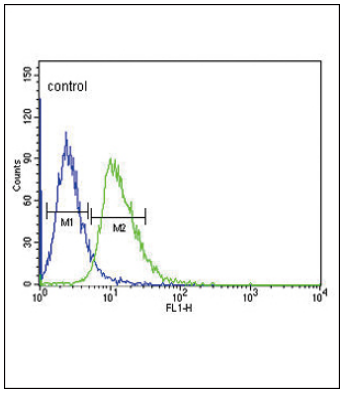


Western blot analysis of DRD4 Antibody (Center) (Cat. #AP8760c) in mouse heart tissue lysates (35ug/lane). DRD4 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with DRD4 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

DRD4 Antibody (Center) (Cat. #AP8760c) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Loss of cone cyclic nucleotide-gated channel leads to alterations in light response modulating system and cellular stress response pathways: a gene expression profiling study.