

### **DRD4 Antibody (Center)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP8760C

### Specification

# DRD4 Antibody (Center) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Antigen Region FC, IHC-P, WB,E <u>P21917</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 365-391

## **DRD4** Antibody (Center) - 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  $FC \sim 1:10 \sim 50$   $IHC-P \sim 1:10 \sim 50$   $WB \sim 1:1000$  $E \sim -Use$  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.

# DRD4 Antibody (Center) - 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:<u>16423344</u>, PubMed:<u>27659709</u>, PubMed:<u>29051383</u>, PubMed:<u>9003072</u>). Agonist binding triggers signaling via G proteins that inhibit adenylyl cyclase (PubMed:<u>16423344</u>, PubMed:<u>27659709</u>, PubMed:<u>29051383</u>, PubMed:<u>7512953</u>, PubMed:<u>7643093</u>). 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**

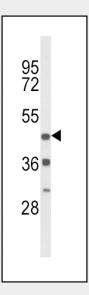
Highly expressed in retina. Detected at much lower levels in brain, in amygdala, thalamus, hypothalamus, cerebellum and pituitary.

### **DRD4 Antibody (Center) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

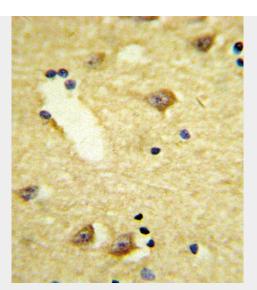
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### **DRD4 Antibody (Center) - Images**

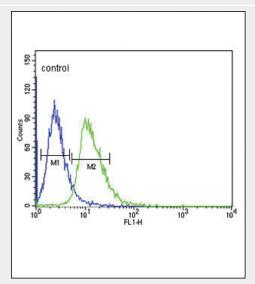


Western blot analysis of DRD4 Antibody (Center) (Cat. #AP8760c) in mouse heart tissue lysates (35ug/lane). DRD4 (arrow) was detected using the purified Pab.





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.

# DRD4 Antibody (Center) - 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.

# DRD4 Antibody (Center) - References

Livingstone,C.D., et.al., Biochem. J. 287 (PT 1), 277-282 (1992) DRD4 Antibody (Center) - 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.

