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DRD4 Antibody (Center)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2167b

Specification

DRD4 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	P21917
Other Accession	NP_000788.2
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**43901**
Antigen Region	**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 mice immunized with a KLH conjugated synthetic peptide between 365-391 amino acids from the Central region of human DRD4.

Dilution
WB~~1:500~1000

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

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:9003072, PubMed:16423344, PubMed:27659709, PubMed:29051383). Agonist binding triggers signaling via G proteins that inhibit adenylyl cyclase (PubMed:7512953, PubMed:7643093, PubMed:16423344, PubMed:27659709, PubMed:29051383). 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

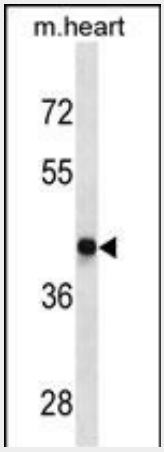
Tissue Location
Highly expressed in retina. Detected at much lower levels in brain, in amygdala, thalamus, hypothalamus, cerebellum and pituitary.

DRD4 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DRD4 Antibody (Center) - Images



DRD4 Antibody (Center) (Cat. #AM2167b) western blot analysis in mouse heart tissue lysates (35µg/lane).This demonstrates the DRD4 antibody detected the DRD4 protein (arrow).

DRD4 Antibody (Center) - Background

This gene encodes 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. Mutations in this gene have been associated with various behavioral phenotypes, including autonomic nervous system dysfunction, attention

deficit/hyperactivity disorder, and the personality trait of novelty seeking. This gene contains a polymorphic number (2-10 copies) of tandem 48 nt repeats; the sequence shown contains four repeats.

DRD4 Antibody (Center) - References

Lai, J.H., et al. Brain Res. 1359, 227-232 (2010) :
Paloyelis, Y., et al. Neuropsychopharmacology 35(12):2414-2426(2010)
Gadow, K.D., et al. Eur. J. Neurosci. 32(6):1058-1065(2010)
Szekely, A., et al. Genes Brain Behav. (2010) In press :
Chio, C.L., et al. J. Biol. Chem. 269(16):11813-11819(1994)