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Anti-Dopamine Receptor D5 Antibody

Catalog # ABO11514

Product Information

Application	WB
Primary Accession	Q8BLD9
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for D(1B) dopamine receptor(DRD5) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	13492
Other Names	D(1B) dopamine receptor, D(5) dopamine receptor, Dopamine D5 receptor, Drd5
Calculated MW	53076
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane; Multi-pass membrane protein.
Source	Eukaryota
Protein Name	D(1B) dopamine receptor
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Dopamine Receptor D5(388-407aa LISYNQDTVFHREIAAAYVH), different from the related rat sequence by two amino acids, and from the related human sequence by three amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

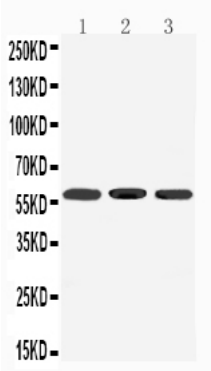
Protein Information

Name	Drd5
Function	G protein-coupled receptor for dopamine, a catecholamine neurotransmitter hormone that functions as the brain's 'reward chemical', driving motivation, reinforcement learning and pleasure (By similarity). Dopamine binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (By similarity). Dopamine receptors can be classified in two categories: (1) DRD5 (together with DRD1) is a D1-type receptor and is coupled to G(s) G proteins, mediating activation of adenylate cyclase activity, while D2-type receptors (DRD2, DRD3 and DRD4) are coupled to G(i)/G(o) G proteins and promote inhibition of adenylate cyclase activity (By similarity). D1- and D2-type dopamine receptors have antagonistic effects, particularly in the brain's striatum, where they govern voluntary movement and reward: D1-type receptors generally stimulate neural activity and promotes action, while D2-type receptors tend to inhibit neural activity and suppress movement (By similarity). DRD5 acts as a key regulator of blood pressure: negatively regulates the renin-angiotensin system (RAS), thereby reducing renal sodium absorption by the kidney (PubMed:12486173, PubMed:21051739).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P21918}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P21918}

Background

D(1B) dopamine receptor(DRD5), also called DRD1B or DRD1L2 is a protein that in humans is encoded by the DRD5 gene. This gene is mapped to 4p16.1. This gene encodes the D5 subtype of the dopamine receptor. The D5 subtype is a G-protein coupled receptor which stimulates adenylyl cyclase. This receptor is expressed in neurons in the limbic regions of the brain. It has a 10-fold higher affinity for dopamine than the D1 subtype. Pseudogenes related to this gene reside on chromosomes 1 and 2. Compared with DRD1, DRD5 displayed a higher affinity for dopamine and was able to stimulate a biphasic rather than a monophasic intracellular accumulation of cAMP.

Images



Anti-Dopamine Receptor D5 antibody, ABO11514, Western blottingAll lanes: Anti Dopamine Receptor D5 (ABO11514) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Brain Rat Brain Tissue Lysate at 50ugLane 3: U87 Whole Cell Lysate at 40ugPredicted bind size: 53KDObserved bind size: 58KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.