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Anti-DRD5 / Dopamine Receptor D5 Antibody

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18008

Product Information

Application	WB, IHC-P
Primary Accession	P21918
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52951
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	1816
Alias Symbol	DRD5
Other Names	DRD5, D(5) dopamine receptor, D1beta dopamine receptor, D5 dopamine receptor, Dopamine 5 receptor, Dopamine receptor D5, DRD1B, D(1B) dopamine receptor, D1b dopamine receptor, D1b receptor, DBDR, Dopamine receptor 5, DRD1L2, Hd5dr, Dopamine d1b recep ...
Target/Specificity	Human DRD5 / Dopamine Receptor D5
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-DRD5 / Dopamine Receptor D5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DRD5 {ECO:0000303|PubMed:11781417, ECO:0000312|HGNC:HGNC:3026}
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 (PubMed:11500503, PubMed:1826762, PubMed:1834671, PubMed:37221270). 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 (PubMed:11500503, PubMed:1826762, PubMed:1834671, PubMed:37221270). 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

(PubMed:11500503, PubMed:1826762, PubMed:1834671, PubMed:37221270). 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 (PubMed:11500503, PubMed:1826762, PubMed:1834671, PubMed:37221270). DRD5 acts as a key regulator of blood pressure: negatively regulates the renin-angiotensin system (RAS), thereby reducing renal sodium absorption by the kidney (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Neuron-specific, localized primarily within limbic regions of the brain.

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