

Product datasheet for **TA328802**

Drd5 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide EEGWELEGRTENC, corresponding to amino acid residues 199-211 of rat D5 dopamine receptor. 2nd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	dopamine receptor D5
Database Link:	NP_036900 Entrez Gene 13492 Mouse Entrez Gene 25195 Rat P25115



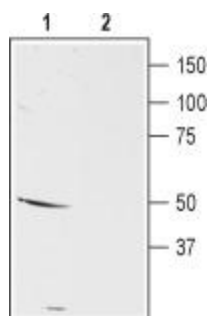
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Background:

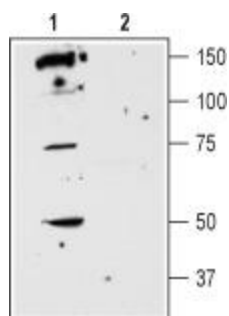
The D5 Dopamine Receptor (D5 receptor) is one of five receptors that mediate the effects of the catecholamine neurotransmitter dopamine. Dopamine regulates a variety of functions including locomotor activity, emotion, positive reinforcement, food intake, and hormone secretion. The dopaminergic system has been extensively studied in the last thirty years mainly because its dysregulation has been linked to several neurological and neuropsychiatric diseases including Parkinson's disease and schizophrenia. All five dopamine receptors belong to the 7-transmembrane domain, G protein-coupled receptor (GPCR) superfamily. Historically, the five receptors have been divided into two subfamilies based on pharmacological and structural considerations: the D1-like subfamily (that includes the D1 and D5 subtypes) and the D2-like subfamily (that includes the D2-, D3- and D4 subtypes). The D1-like receptors are coupled to Gs-type G proteins and enhance adenylate cyclase activity while the D2-like receptors are coupled to Gi-type G proteins and inhibit adenylate cyclase activity. The D5 receptor is widely distributed throughout the brain with the highest expression in the cerebral cortex, hippocampus and striatum. In the periphery the D5 receptor has been localized in the adrenal cortex, kidney and intestinal tract. The exact physiological function of the D5 receptor subtype remains poorly understood. Studies with D5 receptor knock out mice have shown no overt alterations in locomotor or cognitive functions. However, knock out mice do develop severe hypertension suggesting a role of D5 receptor in the modulation of neuronal pathways regulating blood pressure responses.

Synonyms:

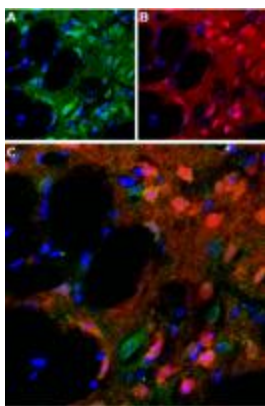
DBDR; DRD1B; DRD1L2; MGC10601

Product images:

Western blot analysis of mouse brain membranes: 1. Anti-D5 Dopamine Receptor (extracellular) antibody, (1:200). 2. Anti-D5 Dopamine Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of rat striatum membranes: 1. Anti-D5 Dopamine Receptor (extracellular) antibody, (1:200). 2. Anti-D5 Dopamine Receptor (extracellular) antibody, preincubated with the control peptide antigen.



IHC staining of perfusion-fixed rat brain frozen using Anti-D5 Dopamine Receptor (extracellular) antibody, (1:100). A. D5 Dopamine Receptor (green) appears in a subset of striatal neurons and in the striatal matrix. B. Staining of the same section with calbindin D28k (red), a marker of interneurons. C. Merging the two images demonstrates that D5 Dopamine Receptor partially overlaps with the population of calbindin containing striatal interneurons. DAPI is used as the counterstain (blue).