

Product datasheet for **TA328800**

Drd3 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 CGAENSTGVNRARPH, corresponding to amino acid residues 15-29 of rat D3 Dopamine receptor. Extracellular, N-terminus.
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 D3
Database Link:	NP_058836 Entrez Gene 13490 Mouse Entrez Gene 29238 Rat P19020



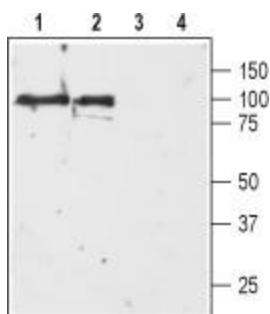
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Background:

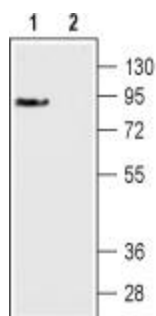
The D3 Dopamine Receptor (D3 receptor) is one of five receptors that mediate the effects of the catecholamine neurotransmitter dopamine. Dopamine regulates a variety of functions including locomotor activity, emotion, positive reinforcement, food intake, and endocrine regulation. The dopaminergic system 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 D3 receptor distribution in the brain is relatively restricted to limbic areas such as striatum, islands of Calleja and olfactory tubercle. In the periphery, it is expressed in the kidney particularly in proximal tubules. The exact physiological function of the D3 receptor remains to be fully elucidated. In studies using D3 receptor knockout mice, the most prominent dysfunction was the development of rennin-dependent hypertension. Potential roles in reinforcement and reward behaviors have also been suggested as well as roles in neuropsychiatric disorders such as drug abuse and schizophrenia.

Synonyms:

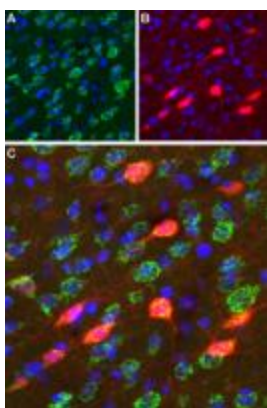
D3DR; ETM1; FET1; MGC149204; MGC149205

Product images:

Western blot analysis of rat whole brain (lanes 1 and 3) and striatum (lanes 2 and 4) membranes: 1, 2. Anti-D3 Dopamine Receptor (extracellular) antibody, (1:200). 3, 4. Anti-D3 Dopamine Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of mouse brain membranes: 1. Anti-D3 Dopamine Receptor (extracellular) antibody, (1:200). 2. Anti-D3 Dopamine Receptor (extracellular) antibody, preincubated with the control peptide antigen.



A. D3 Dopamine receptor appears in a subset of striatal neurons (green). B. The same section was stained for parvalbumin (red), a marker of interneurons. C. Merging the two images demonstrates that D3 Dopamine Receptor localization includes parvalbuminergic striatal interneurons. DAPI was used as the counterstain (blue).