

Anti-Dopamine Receptor D3 Antibody

Catalog # ABO10898

Product Information

Application	WB, IHC-P
Primary Accession	P35462
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for D(3) dopamine receptor(DRD3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1814
Other Names	D(3) dopamine receptor, Dopamine D3 receptor, DRD3
Calculated MW	44195
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Rat, Human, Mouse, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Rat, Mouse
Subcellular Localization	Cell membrane ; Multi-pass membrane protein . Both membrane-bound and scattered in the cytoplasm during basal conditions. Receptor stimulation results in the rapid internalization and sequestration of the receptors at the perinuclear area (5 and 15 minutes), followed by the dispersal of the receptors to the membrane (30 minutes). DRD3 and GRK4 co- localize in lipid rafts of renal proximal tubule cells.
Tissue Specificity	Brain.
Source	Eukaryota
Protein Name	D(3) dopamine receptor
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Dopamine Receptor D3(352-367aa NTHCQTCHVSPELYSA), different from the related rat and mouse sequences by two 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.
Sequence Similarities	Belongs to the G-protein coupled receptor 1 family.

Protein Information

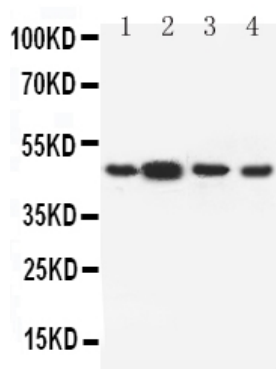
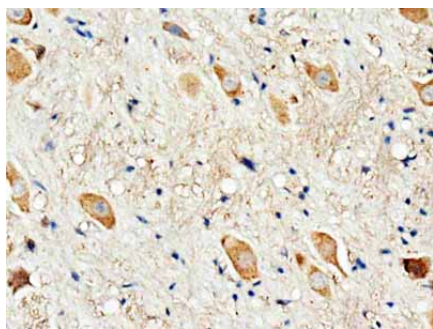
Name	DRD3 (HGNC:3024)
Function	Dopamine receptor that is primarily expressed in limbic areas of the brain and is involved in the modulation of cognitive, emotional, and endocrine functions (PubMed: 39984436). Plays a key role in regulating neuronal signaling pathways associated with motivation, reward, and behavior (PubMed: 39984436). Coupled to G(i)/G(o) proteins; activation leads to inhibition of adenylate cyclase and decreased intracellular cAMP levels (PubMed: 10578130). Involved in the control of locomotor activity and implicated in several neuropsychiatric disorders, including schizophrenia and substance use disorders (PubMed: 39984436). Promotes cell proliferation through MAP kinase signaling (PubMed: 19520868). Also involved in autophagy regulation: receptor activation stimulates AMPK, which phosphorylates RPTOR and enhances its interaction with MTOR, thereby inhibiting MTORC1 signaling and its downstream target RPS6KB1. This leads to activation of ULK1 and initiation of the autophagy cascade (PubMed: 31538542). Forms heterotetramers with DRD1 to potentiate beta-arrestin recruitment and mediate locomotor activity (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Note=Both membrane-bound and scattered in the cytoplasm during basal conditions Receptor stimulation results in the rapid internalization and sequestration of the receptors at the perinuclear area (5 and 15 minutes), followed by the dispersal of the receptors to the membrane (30 minutes). DRD3 and GRK4 co-localize in lipid rafts of renal proximal tubule cells
Tissue Location	Brain.

Background

DRD3 is a dopamine receptor that differs in its pharmacology and signaling system from the D1 and D2 receptors and represents both an autoreceptor and a postsynaptic receptor. DRD3 is localized to limbic areas of the brain, which are associated with cognitive, emotional, and endocrine functions. The DRD3 gene, which is mapped to chromosome 3, is like the DRD2 gene but unlike most other members of this superfamily and it contains introns, 5 in number. The position of 2 of the introns corresponds to that of introns in DRD2. The D3 receptor appeared to mediate some of the effects of antipsychotic drugs and drugs used in the treatment of Parkinson disease, which were previously thought to interact only with D2 receptors.

Images

Anti-Dopamine Receptor D3 antibody, ABO10898,
IHC(P)IHC(P): Rat Brain Tissue



Anti-Dopamine Receptor D3 antibody, ABO10898,
Western blotting
Lane 1: Rat Testis Tissue Lysate
Lane 2: Rat Brain Tissue Lysate
Lane 3: U87 Cell Lysate
Lane 4: HELA Cell Lysate

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