abcam

Product datasheet

Anti-Dopamine Receptor D3/DRD3 antibody ab42114

3 Abreviews 14 References 2 Images

Overview

Product name	Anti-Dopamine Receptor D3/DRD3 antibody
Description	Rabbit polyclonal to Dopamine Receptor D3/DRD3
Host species	Rabbit
Tested applications	**Suitable for:** ELISA, Dot blot, ICC/IF, IP, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human, Recombinant fragment
Immunogen	Synthetic peptide corresponding to Dopamine Receptor D3/DRD3. Run BLAST with ExPASy Run BLAST with NCBI
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium azide
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab42114 in the following tested applications.

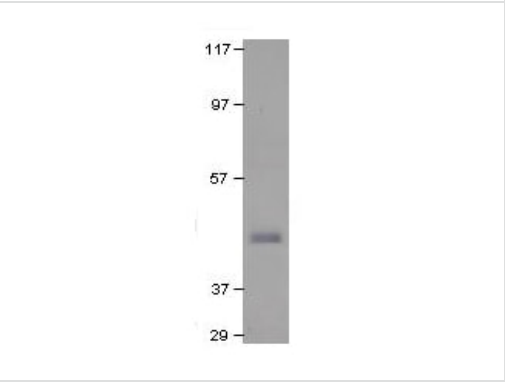
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.
ICC/IF		Use a concentration of 5 µg/ml.
IP		Use at an assay dependent concentration. 2 ÂµI of this antibody will immunoprecpitate 65-80% dopamine recombinant D3 receptor protein from COS1 cells.
WB	★★★★☆ **(1)**	1/1000 - 1/15000. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa).

Target

Function	This is one of the five types (D1 to D5) of receptors for dopamine. The activity of this receptor is mediated by G proteins which inhibit adenylyl cyclase. Promotes cell proliferation.
Tissue specificity	Brain.
Involvement in disease	Genetic variation in DRD3 is associated with essential tremor hereditary type 1 (ETM1) [MIM:190300]. ETM1 is the most common movement disorder. The main feature is postural tremor of the arms. Head, legs, trunk, voice, jaw, and facial muscles also may be involved. The condition can be aggravated by emotions, hunger, fatigue and temperature extremes, and may cause a functional disability or even incapacitation. Inheritance is autosomal dominant.
Sequence similarities	Belongs to the G-protein coupled receptor 1 family.
Post-translational modifications	Phosphorylated by GRK4 (GRK4-alpha and GRK4-gamma).
Cellular localization	Cell membrane. 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.

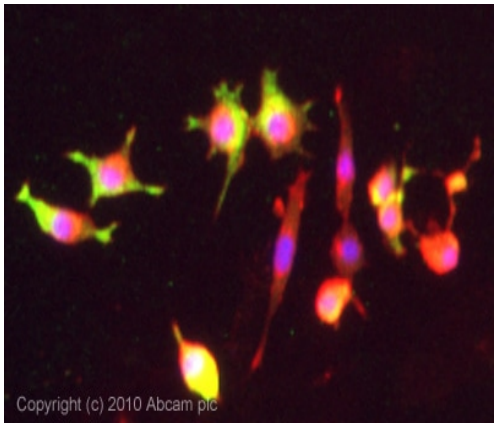
Images



Western blot - Anti-Dopamine Receptor D3/DRD3 antibody (ab42114)

Anti-Dopamine Receptor D3/DRD3 antibody (ab42114) at 1/750 dilution + Dopamine Receptor D3 Positive Control (rat)

Predicted band size: 50 kDa
Observed band size: 50 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Dopamine Receptor D3/DRD3 antibody (ab42114)

ICC/IF image of ab42114 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab42114, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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