Human Dopamine D1 R/DRD1 Antibody

Monoclonal Mouse IgG_{2A} Clone # 887438

Catalog Number: MAB8276

DESCRIPTION

Species Reactivity	Human
Specificity	Stains human Dopamine D1 R/DRD1 transfected cells but not irrelevant transfectants in flow cytometry.
Source	Monoclonal Mouse IgG_{2A} Clone # 887438
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human Dopamine D1 R/DRD1 Met1-Thr446 Accession # P21728
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

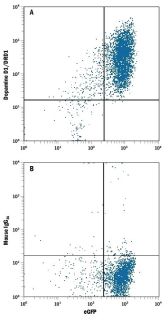
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

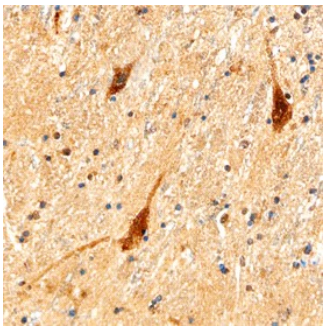
DATA

Flow Cytometry



Detection of Dopamine D1 R/DRD1 in HEK293 Human Cell Line Transfected with Human Dopamine D1/DRD1 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with human Dopamine D1/DRD1 and eGFP was stained with either (A) Mouse Anti-Human Dopamine D1 R/DRD1 Monoclonal Antibody (Catalog # MAB8276) or (B) Mouse IgG_{2A} Isotype Control (Catalog # MAB003) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B).

Immunohistochemistry



Dopamine D1 R/DRD1 in Human Brain. Dopamine D1 R/DRD1 was detected in immersion fixed paraffin-embedded sections of human brain (caudate nucleus) using Mouse Anti-Human Dopamine D1 R/DRD1 Monoclonal Antibody (Catalog # MAB8276) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Dopamine Receptor D1 (DRD1) is a 50 kDa member of class 1 GPCR superfamily and is the most abundant dopamine receptor in the central nervous system. This G-protein coupled receptor stimulates adenylyl cyclase and activates cyclic AMP-dependent protein kinases. D1 receptors regulate neuronal growth and development, mediate some behavioral responses, and modulate dopamine receptor D2-mediated events. DRD1 is associated with nicotine dependence, schizophrenia, and systolic blood pressure levels.

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