

DESCRIPTION

Species Reactivity	Human
Specificity	Detects HEK293 human embryonic kidney cell line transfected with human Dopamine D5 R/DRD5 by Flow Cytometry. Does not detect untransfected or irrelevant transfected HEK293 cells.
Source	Monoclonal Mouse IgG _{2A} Clone # 889022
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human Dopamine D5 R/DRD5 Met1-His477 Accession # P21918
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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	0.25-1 µg/10 ⁶ cells	HEK293 human embryonic kidney cell line transfected with human Dopamine D5 R/DRD5 and eGFP

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

DRD5, also known as Dopamine D5 Receptor has a higher affinity for neurotransmitter dopamine than DRD1 (1). DRD5 is expressed in neurons in many human brain regions, including cortex regions, hippocampus, choroid plexus, and brainstem (2). Polymorphisms in the DRD5 gene have been associated with Attention Deficit Hyperactivity Disorder (ADHD) (3), schizophrenia (4) and nicotine dependence (5). Dopamine receptors undergo endocytosis upon interaction with receptor agonists and by activation of Protein Kinase C (PKC) (6).

References:

1. Sunahra, R. *et al.* (1991) *Nature*. **350**:614.
2. Weinsank, R. *et al.* (1991) *J Biol Chem*. **266**:22427.
3. Squassina, A. *et al.* (2008) *Neurosci Lett*. Feb 13.
4. Golimbet, V. *et al.* (2008) *Bull Exp Biol Med*. Jan.
5. Wei, J. *et al.* (2012) *Addict Behav*. **37**:622.
6. Thompson, D. *et al.* (2011) *Traffic*. **12**:644.

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