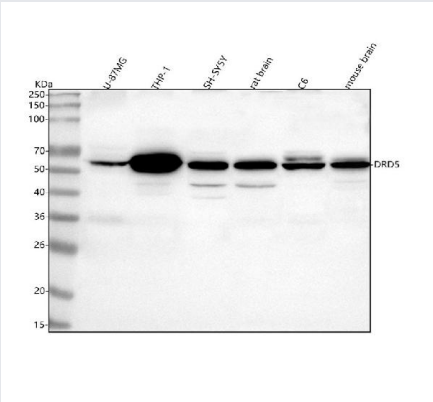
DRD5 Antibody – Rabbit Polyclonal

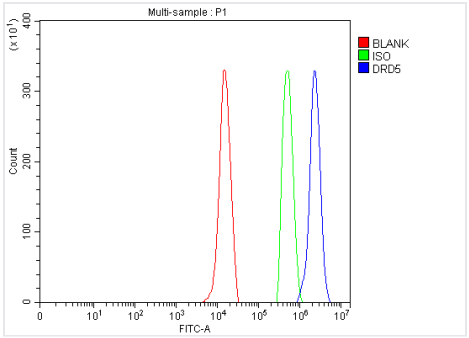
PRODUCT OVERVIEW

Product Name	DRD5, Polyclonal Antibody
Full Product Name	Anti-DRD5 Antibody Picoband
Product Gene Name	anti-DRD5 antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	52,951 Da
OMIM	126453
3D Structure	ModBase 3D Structure for P21918
Immunogen	E coli-derived human DRD5 recombinant protein (Position: M1-H477). Human DRD5 shares 82.3% and 82.4% amino acid (aa) sequence identity with mouse and rat DRD5, respectively.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Product Categories/Family for anti-DRD5 antibody	Primary Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-DRD5 antibody	Western Blot (WB), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-DRD5 antibody	WB: 0.25-0.5ug/ml, Human, Mouse, Rat FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-DRD5 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-DRD5 antibody	1. Li, H., Armando, I., Yu, P., Escano, C., Mueller, S. C., Asico, L., Pascua, A., Lu, Q., Wang, X., Villar, V. A. M., Jones, J. E., Wang, Z., and 9 others. Dopamine 5 receptor mediates Ang II type 1 receptor degradation via a ubiquitin-proteasome pathway in mice and human cells. J. Clin. Invest. 118: 2180-2189, 2008. Note: Erratum: J. Clin. Invest. 118: 2986 only, 2008.2. Lowe, N., Kirley, A., Hawi, Z., Sham, P., Wickham, H., Kratochvil, C. J., Smith, S. D., Lee, S. Y., Levy, F., Kent, L., Middle, F., Rohde, L. A., and 20 others. Joint analysis of the DRD5 marker concludes association with attention-deficit/hyperactivity disorder confined to the predominantly inattentive and combined subtypes. Am. J. Hum. Genet. 74: 348-356, 2004.3. Misbahuddin, A., Placzek, M. R., Chaudhuri, K. R., Wood, N. W., Bhatia, K. P., Warner, T. T. A polymorphism in the dopamine receptor DRD5 is associated with blepharospasm. Neurology 58: 124-126, 2002.
Other Notes	Small volumes of anti-DRD5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for DRD5 purchase	MBS1758358 is an antibody targeting DRD5. Also known as Anti-DRD5 Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-DRD5 antibody
Figure 1. Western blot analysis of DRD5 using anti-DRD5 antibody (MBS1758358).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human U-87MG whole cell lysates,Lane 2: human THP-1 whole cell lysates,Lane 3: human SH-SY5Y whole cell lysates,Lane 4: rat brain tissue lysates,Lane 5: rat C6 whole cell lysates,Lane 6: mouse brain tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-DRD5 antigen affinity purified polyclonal antibody (#MBS1758358) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for DRD5 at approximately 58 kDa. The expected band size for DRD5 is at 53 kDa.



Flow Cytometry (FC/FACS) of anti-DRD5 antibody
Figure 2. Flow Cytometry analysis of U937 cells using anti-DRD5 antibody (MBS1758358).Overlay histogram showing U937 cells stained with MBS1758358 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-DRD5 Antibody (MBS1758358, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DRD5. It may not necessarily be applicable to this product.

NCBI GI #	4503391
NCBI GeneID	1816
NCBI Accession #	NP_000789.1
UniProt Primary Accession #	P21918
UniProt Secondary Accession #	Q8NEQ8; B2R9S3
UniProt Related Accession #	P21918
GenBank Nucleotide #	NM_000798.4
NCBI Official Full Name	D(1B) dopamine receptor
NCBI Official Synonym Full Names	dopamine receptor D5
NCBI Official Symbol	DRD5
NCBI Official Synonym Symbols	DBDR; DRD1B; DRD1L2
UniProt Protein Name	D(1B) dopamine receptor
UniProt Synonym Protein Names	D(5) dopamine receptor; D1beta dopamine receptor; Dopamine D5 receptor
Protein Family	D(1B) dopamine receptor
UniProt Gene Name	DRD5
UniProt Synonym Gene Names	DRD1B; DRD1L2

UniProt Entry Name	DRD5_HUMAN
NCBI Protein Information	D(1B) dopamine receptor; D(1B) dopamine receptor; dopamine D5 receptor; dopamine receptor D1B; d(5) dopamine receptor; D1beta dopamine receptor
NCBI Summary for DRD5	This gene encodes the D5 subtype of the dopamine receptor. The D5 subtype is a G-protein coupled receptor which stimulates adenylyl cyclase. This receptor is expressed in neurons in the limbic regions of the brain. It has a 10-fold higher affinity for dopamine than the D1 subtype. Pseudogenes related to this gene reside on chromosomes 1 and 2. [provided by RefSeq, Jul 2008]
UniProt Comments for DRD5	DRD5: Dopamine receptor whose activity is mediated by G proteins which activate adenylyl cyclase. Defects in DRD5 are a cause of benign essential blepharospasm (BEB). BEB is a primary focal dystonia affecting the orbicularis oculi muscles. Dystonia is defined by the presence of sustained involuntary muscle contraction, often leading to abnormal postures. BEB usually begins in middle age. Initial symptoms include eye irritation and frequent blinking, progressing to involuntary spasms of eyelid closure. Patients have normal eyes. The visual disturbance is due solely to the forced closure of the eyelids. In severe cases, this can lead to functional blindness. Belongs to the G-protein coupled receptor 1 family. Protein type: GPCR, family 1; Membrane protein, multi-pass; Membrane protein, integral; Receptor, GPCR Chromosomal Location of Human Ortholog: 4p16.1 Cellular Component: brush border membrane; integral to plasma membrane; plasma membrane Molecular Function: dopamine receptor activity; dopamine binding; dopamine D1 receptor-like receptor activity Biological Process: synaptic transmission, dopaminergic; wound healing; adenylate cyclase activation; response to amphetamine; transmission of nerve impulse; norepinephrine-epinephrine vasoconstriction involved in regulation of systemic arterial blood pressure; response to cocaine; G-protein signaling, adenylate cyclase activating pathway; cellular calcium ion homeostasis; synaptic transmission; regulation of female receptivity; regulation of systemic arterial blood pressure by vasopressin; sensitization; negative regulation of blood pressure; dopamine receptor, phospholipase C activating pathway; positive regulation of adenylate cyclase activity; negative regulation of NAD(P)H oxidase activity; associative learning; dopamine receptor, adenylate cyclase activating pathway Disease: Attention Deficit-hyperactivity Disorder; Blepharospasm, Benign Essential
Research Articles on DRD5	**1.** Its signaling regulates human osteoclastogenesis. (review)
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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