D(1a) Dopamine Receptor (DRD1) ELISA Kit for Human

PRODUCT OVERVIEW

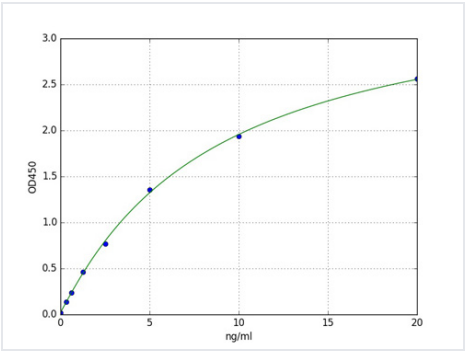
Product Name	D(1A) dopamine receptor (DRD1), ELISA Kit
Full Product Name	Human D(1A) dopamine receptor ELISA Kit
Product Gene Name	DRD1 elisa kit
Product Synonym Names	D1R/DRD1 (Dopamine Receptor D1)/D (1A) dopamine receptor/Dopamine D1 receptor
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.313-20ng/ml
Sensitivity	0.188ng/ml
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Molecular Weight	49,293 Da
OMIM	126449
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for DRD1 elisa kit	Principle of the Assay||This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-Human D1R antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-Human D1R antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human D1R amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of Human D1R can be calculated.
Other Notes	Small volumes of DRD1 elisa kit 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 DRD1 purchase	MBS762050 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the D(1A) dopamine receptor (DRD1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing DRD1. The ELISA analytical biochemical technique of the MBS762050 kit is based on DRD1 antibody-DRD1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DRD1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DRD1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

Typical Data & Standard Curve

Results of a typical standard run of a Human D1R ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.313	0.625	1.25	2.5	5	10	20
Y	OD450	0.023	0.135	0.236	0.447	0.791	1.342	1.942	2.562

Typical Testing Data of DRD1 elisa kit



Typical Standard Curve of DRD1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DRD1. It may not necessarily be applicable to this product.

NCBI GI #	118228
NCBI GeneID	1812
NCBI Accession #	P21728.1
UniProt Secondary Accession #	Q4QRJ0; B2RA44
UniProt Related Accession #	P21728
NCBI Official Full Name	D(1A) dopamine receptor
NCBI Official Synonym Full Names	dopamine receptor D1
NCBI Official Symbol	DRD1
NCBI Official Synonym Symbols	DADR; DRD1A
UniProt Protein Name	D(1A) dopamine receptor
UniProt Synonym Protein Names	Dopamine D1 receptor
Protein Family	D(1A) dopamine receptor
UniProt Gene Name	DRD1
UniProt Entry Name	DRD1_HUMAN
NCBI Protein Information	D(1A) dopamine receptor
NCBI Summary for DRD1	This gene encodes the D1 subtype of the dopamine receptor. The D1 subtype 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. Alternate transcription initiation sites result in two transcript variants of this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for DRD1	DRD1: a G-protein coupled receptor.One of the five types (D1 to D5) of receptors for dopamine. The most abundant dopamine receptor in the central nervous system. The activity of this receptor is mediated by G proteins which activate adenylyl cyclase. Interacts with calcyon. Protein type: Membrane protein, multi-pass; Membrane protein, integral; GPCR, family 1; Receptor, GPCR Chromosomal Location of Human Ortholog: 5q35.1 Cellular Component: caveola; cell soma; cytosol; dendritic shaft; endoplasmic reticulum membrane; integral to plasma membrane; nerve terminal; nonmotile primary cilium; nucleus; plasma membrane Molecular Function: angiotensin receptor binding; ATPase binding; D3 dopamine receptor binding; dopamine binding; dopamine D1 receptor-like receptor activity; dopamine receptor activity; drug binding; G-protein alpha-subunit binding; protein binding; protein complex binding; protein heterodimerization activity; protein phosphatase binding Biological Process: adenylate cyclase activation; adult walking behavior; astrocyte development; behavioral fear response; behavioral response to cocaine; calcium-mediated signaling; cellular response to insulin stimulus; cerebral cortex GABAergic interneuron migration; conditioned taste aversion; dentate gyrus development; dopamine metabolic process; dopamine receptor, adenylate cyclase activating pathway; dopamine receptor, phospholipase C activating pathway; dopamine transport; elevation of cytosolic calcium ion concentration during G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); G-protein signaling, adenylate cyclase activating pathway; G-protein signaling, coupled to cyclic nucleotide second messenger; generation of action potential; glucose import; grooming behavior; habituation; learning; maternal behavior; mating behavior; memory; negative regulation of cell migration; negative regulation of circadian sleep/wake cycle, sleep; negative regulation of protein kinase activity; operant conditioning; orbitofrontal cortex development; peristalsis; positive regulation of cAMP biosynthetic process; positive regulation of cell migration; positive regulation of membrane potential; positive regulation of potassium ion transport; positive regulation of release of sequestered calcium ion into cytosol; positive regulation of synaptic transmission, glutamatergic; prepulse inhibition; protein import into nucleus; regulation of dopamine metabolic process; regulation of dopamine uptake; regulation of long-term neuronal synaptic plasticity; regulation of vasoconstriction; response to activity; response to amino acid stimulus; response to amphetamine; response to drug; response to estradiol stimulus; response to ethanol; response to food; response to morphine; response to nicotine; response to retinoic acid; sensitization; social behavior; striatum development; synaptic transmission, dopaminergic; synaptogenesis; thermoregulation; transmission of nerve impulse; vasodilation; visual learning
Research Articles on DRD1	**1.** Dopamine D1 receptor-expressing neurons provide the dominant source of accumbal inhibition to lateral hypothalamus to control over feeding.
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