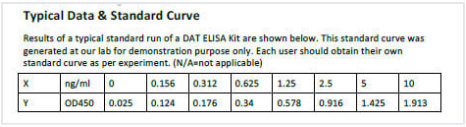
Dopamine Transporter (DAT) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Dopamine Transporter (DAT), ELISA Kit
Full Product Name	Human Dopamine Transporter ELISA Kit
Product Gene Name	DAT elisa kit
Product Synonym Names	DAT/Dopamine Transporter
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.156-10ng/ml
Sensitivity	0.094ng/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of DAT. No significant cross-reactivity or interference between DAT and analogues was observed.
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
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level DAT were tested on 3 different plates, 8 replicates in each plate. CV (%) = SD/meanX100. Inter-Assay: CV<10%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level DAT were tested 20 times on one plate, respectively. Intra-Assay: CV<8%
Molecular Weight	68,495 Da
OMIM	126455
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for DAT elisa kit	Principle of the Assay: This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti- DAT antibody was pre-coated onto 96-well plates. And the biotin conjugated anti- DAT 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 DAT amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of DAT can be calculated.
Other Notes	Small volumes of DAT 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 DAT purchase	MBS760426 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Dopamine Transporter (DAT) 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 DAT. The ELISA analytical biochemical technique of the MBS760426 kit is based on DAT antibody-DAT antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DAT antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DAT. 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 DAT 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	0.156	0.312	0.625	1.25	2.5	5	10
Y	OD450	0.025	0.124	0.176	0.34	0.578	0.916	1.425	1.913

Typical Testing Data/Standard Curve (for reference only) of DAT elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	7108463
NCBI GeneID	6531
NCBI Accession #	AAC50179.2
UniProt Secondary Accession #	Q14996; A2RUN4
UniProt Related Accession #	Q01959
NCBI Official Full Name	dopamine transporter
NCBI Official Synonym Full Names	solute carrier family 6 (neurotransmitter transporter), member 3
NCBI Official Symbol	SLC6A3
NCBI Official Synonym Symbols	DAT; DAT1; PKDYS
UniProt Protein Name	Sodium-dependent dopamine transporter
UniProt Synonym Protein Names	Solute carrier family 6 member 3
Protein Family	D-alanine aminotransferase
UniProt Gene Name	SLC6A3
UniProt Synonym Gene Names	DAT1; DA transporter; DAT
UniProt Entry Name	SC6A3_HUMAN
NCBI Protein Information	sodium-dependent dopamine transporter
NCBI Summary for DAT	This gene encodes a dopamine transporter which is a member of the sodium- and chloride-dependent neurotransmitter transporter family. The 3' UTR of this gene contains a 40 bp tandem repeat, referred to as a variable number tandem repeat or VNTR, which can be present in 3 to 11 copies. Variation in the number of repeats is associated with idiopathic epilepsy, attention-deficit hyperactivity disorder, dependence on alcohol and cocaine, susceptibility to Parkinson disease and protection against nicotine dependence.[provided by RefSeq, Nov 2009]

UniProt Comments for DAT	DAT: Amine transporter. Terminates the action of dopamine by its high affinity sodium-dependent reuptake into presynaptic terminals. Defects in SLC6A3 are the cause of dystonia-parkinsonism infantile (DYTPRI). It is a neurodegenerative disorder characterized by infantile onset of parkinsonism and dystonia. Other neurologic features include global developmental delay, bradikinesia and pyramidal tract signs. Belongs to the sodium:neurotransmitter symporter (SNF) (TC 2.A.22) family. SLC6A3 subfamily. Protein type: Transporter; Transporter, SLC family; Membrane protein, multi-pass; Membrane protein, integral Chromosomal Location of Human Ortholog: 5p15.3 Cellular Component: axon; cell soma; cell surface; cytoplasm; flotillin complex; integral to membrane; integral to plasma membrane; plasma membrane Molecular Function: dopamine binding; dopamine transmembrane transporter activity; dopamine:sodium symporter activity; drug binding; monoamine transmembrane transporter activity; protease binding; protein binding; protein complex binding; protein N-terminus binding; protein phosphatase 2A binding; receptor binding Biological Process: adenohypophysis development; aging; dopamine biosynthetic process; dopamine catabolic process; dopamine transport; dopamine uptake; lactation; locomotory behavior; monoamine transport; neurotransmitter biosynthetic process; positive regulation of multicellular organism growth; prepulse inhibition; regulation of dopamine metabolic process; response to cAMP; response to cocaine; response to drug; response to ethanol; response to iron ion; response to nicotine; sensory perception of smell; synaptic transmission; transmembrane transport Disease: Parkinsonism-dystonia, Infantile; Tobacco Addiction, Susceptibility To
Research Articles on DAT	**1.** As a conclusion, there was no association between 5-HTT, DAT1 and DRD4 genes VNTR polymorphisms and obesity
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