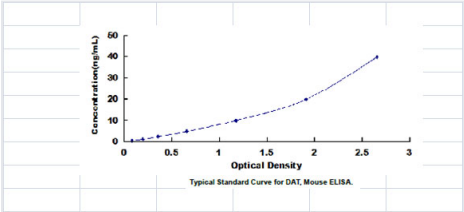
Dopamine Transporter (DAT) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	Dopamine Transporter (DAT), ELISA Kit
Full Product Name	Mouse Dopamine Transporter (DAT) ELISA Kit
Product Gene Name	DAT elisa kit
Product Synonym Names	SLC6A3; DAT1; Sodium-dependent dopamine transporter; Dopamine Active Transporter; SLC6-A3; Solute Carrier Family 6(neurotransmitter Transporter,Dopamine),Member 3
Species Reactivity	Mouse
Assay Type	Double-antibody Sandwich
Samples	Tissue homogenates, Cell lysates and other biological fluids
Detection Range	0.625-40ng/mL
Sensitivity	0.249ng/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	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
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<12%
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<10%
Molecular Weight	68,495 Da
OMIM	126455
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Product Categories/Family for DAT elisa kit	Signal transduction; Neuroscience
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Related Product Information for DAT elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of DAT in mouse tissue homogenates, cell lysates and other biological fluids. Principle of the Assay: The microplate provided in this kit has been pre-coated with an antibody specific to DAT. Standards or samples are then added to the appropriate microplate wells with a biotin-conjugated antibody specific to DAT. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain DAT, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of DAT in the samples is then determined by comparing the O.D. of the samples to the standard curve.

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	MBS2025503 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 MBS2025503 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 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: Membrane protein, multi-pass; Transporter, SLC family; Transporter; Membrane protein, integral Chromosomal Location of Human Ortholog: 5p15.3 Cellular Component: cell soma; integral to plasma membrane; axon; cytoplasm; plasma membrane; integral to membrane Molecular Function: protein binding; protease binding; dopamine binding; protein complex binding; monoamine transmembrane transporter activity; protein N-terminus binding; drug binding; dopamine:sodium symporter activity; dopamine transmembrane transporter activity; receptor binding Biological Process: response to nicotine; lactation; response to drug; dopamine transport; response to cAMP; prepulse inhibition; dopamine catabolic process; regulation of dopamine metabolic process; monoamine transport; sensory perception of smell; locomotory behavior; dopamine biosynthetic process; positive regulation of multicellular organism growth; response to cocaine; synaptic transmission; response to ethanol; neurotransmitter transport; adenohypophysis development; transmembrane transport; response to iron ion; neurotransmitter biosynthetic process; aging Disease: Parkinsonism-dystonia, Infantile; Tobacco Addiction, Susceptibility To
Research Articles on DAT	**1.** A number of 3'UTR nucleotide repeats of an aggression-associated DAT1 gene differs in hadza and datoga Tanzania males.
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