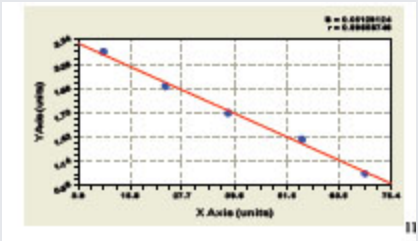
Arginase 1 (Liver Type) (ARG1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Arginase 1 (Liver type) (Arg1), ELISA Kit
Full Product Name	Human Arginase 1 (Liver type) ELISA Kit
Product Gene Name	Arg1 elisa kit
Species Reactivity	Human
Assay Type	Competitive
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	10-250ng/mL
Sensitivity	1.0ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	25,356 Da
OMIM	608313
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Intended Uses	This L-ARG1 ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Human L-ARG1. This ELISA kit for research use only, not for therapeutic applications!
Product Categories/Family for Arg1 elisa kit	Signal Transduction
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for Arg1 elisa kit	**Principle of the assay:** L-ARG1 ELISA kit applies the competitive enzyme immunoassay technique utilizing a monoclonal anti-L-ARG1 antibody and an L-ARG1-HRP conjugate. The assay sample and buffer are incubated together with L-ARG1-HRP conjugate in pre-coated plate for one hour. After the incubation period, the wells are decanted and washed five times. The wells are then incubated with a substrate for HRP enzyme. The product of the enzyme-substrate reaction forms a blue colored complex. Finally, a stop solution is added to stop the reaction, which will then turn the solution yellow. The intensity of color is measured spectrophotometrically at 450nm in a microplate reader. The intensity of the color is inversely proportional to the L-ARG1 concentration since L-ARG1 from samples and L-ARG1-HRP conjugate compete for the anti-L-ARG1 antibody binding site. Since the number of sites is limited, as more sites are occupied by L-ARG1 from the sample, fewer sites are left to bind L-ARG1-HRP conjugate. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The L-ARG1 concentration in each sample is interpolated from this standard curve.
Other Notes	Small volumes of Arg1 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 Arg1 purchase	MBS733912 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Arginase 1 (Liver type) (Arg1) 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 Arg1. The ELISA analytical biochemical technique of the MBS733912 kit is based on Arg1 antibody-Arg1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Arg1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Arg1. 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 Arg1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Arg1. It may not necessarily be applicable to this product.

NCBI GI #	346986435
NCBI GeneID	383
NCBI Accession #	NP_001231367.1
UniProt Secondary Accession #	Q5JWT5; Q5JWT6; Q8TE72; Q9BS50; A6NEA0
UniProt Related Accession #	P05089
GenBank Nucleotide #	NM_001244438.1
NCBI Official Full Name	arginase-1 isoform 1
NCBI Official Synonym Full Names	arginase 1
NCBI Official Symbol	ARG1
UniProt Protein Name	Arginase-1
UniProt Synonym Protein Names	Liver-type arginase; Type I arginase
Protein Family	Arginase
UniProt Gene Name	ARG1
UniProt Entry Name	ARGI1_HUMAN
NCBI Protein Information	arginase-1; arginase, liver; type I arginase; liver-type arginase
NCBI Summary for Arg1	Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type I isoform encoded by this gene, is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

UniProt Comments for Arg1	ARG1: Homotrimer. By arginine or homoarginine. Belongs to the arginase family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.5.3.1; Hydrolase; Amino Acid Metabolism - arginine and proline Chromosomal Location of Human Ortholog: 6q23 Cellular Component: extracellular space; neuron projection; cell soma; cytoplasm; cytosol; nucleus Molecular Function: manganese ion binding; arginase activity Biological Process: response to drug; mammary gland involution; maternal process involved in pregnancy; response to herbicide; response to amino acid stimulus; liver development; response to vitamin A; response to manganese ion; response to selenium ion; response to vitamin E; response to cadmium ion; response to zinc ion; response to methylmercury; arginine catabolic process; positive regulation of endothelial cell proliferation; response to axon injury; collagen biosynthetic process; response to amine stimulus; urea cycle; lung development Disease: Argininemia
Research Articles on Arg1	**1.** Serum arginase I might regulate serum L-arginine and 3-nitrotyrosine via L-arginine.
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