Iodotyrosine Dehalogenase 1 (IYD) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Iodotyrosine dehalogenase 1 (Iyd), Recombinant Protein
Full Product Name	Recombinant Rat Iodotyrosine dehalogenase 1 (Iyd), partial
Product Gene Name	Iyd recombinant protein
Product Synonym Gene Name	Iyd
Sequence	DRSLEEK KEEARAQPWV DEDLKDNTEH LQVEEDTEEW QESEESVEHI LFSHTRYPEQ EMRMRSQEFY ELLSKRRSIR FISSEPVPME VIDNVIKAAG TAPSGAHTEP WTFVVVKDPD MKHKIREIIE EEEEINYMKR MGKRWVTDLK KLRTNWIKEY LDTAPVLILI FKQVHGFAVN GKKKVHYYNE
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	32,846 Da
Sequence Positions	24-210
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q5BK17
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Iyd recombinant protein	This gene encodes an enzyme that catalyzes the oxidative NADPH-dependent deiodination of mono- and diiodotyrosine, which are the halogenated byproducts of thyroid hormone production. The N-terminus of the protein functions as a membrane anchor. Mutations in this gene cause congenital hypothyroidism due to dyshormonogenesis type 4, which is also referred to as deiodinase deficiency, or iodotyrosine dehalogenase deficiency, or thyroid hormonogenesis type 4. Alternative splicing results in multiple transcript variants.
Other Notes	Small volumes of Iyd recombinant protein 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 Iyd purchase	MBS1478536 is a recombinant protein targeting Iyd. Also known as Recombinant Rat Iodotyrosine dehalogenase 1 (Iyd), partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

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

NCBI GI #	68163439
NCBI GeneID	308129
NCBI Accession #	NP_001020171.1

UniProt Primary Accession #	Q5BK17
UniProt Related Accession #	Q5BK17
GenBank Nucleotide #	NM_001025000.1
NCBI Official Full Name	iodotyrosine deiodinase 1
NCBI Official Synonym Full Names	iodotyrosine deiodinase
NCBI Official Symbol	Iyd
NCBI Official Synonym Symbols	RGD1309288
UniProt Protein Name	Iodotyrosine deiodinase 1
UniProt Synonym Protein Names	Iodotyrosine dehalogenase 1
Protein Family	Iodotyrosine deiodinase
UniProt Gene Name	Iyd
UniProt Synonym Gene Names	Dehal1; IYD-1
NCBI Protein Information	iodotyrosine deiodinase 1
UniProt Comments for Iyd	Catalyzes the oxidative NADPH-dependent deiodination of monoiodotyrosine (L-MIT) or diiodotyrosine (L-DIT). Acts during the hydrolysis of thyroglobulin to liberate iodide, which can then reenter the hormone-producing pathways. Acts more efficiently on monoiodotyrosine than on diiodotyrosine.
Research Articles on Iyd	**1.** iodine deficiency results in an increased expression of IYD in thyroid, whereas excess iodine decreases the expression of thyroidal IYD.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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