Recombinant Human DIO2 Protein, GST-tagged

Cat. No. DIO2-2628H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human DIO2 partial ORF (NP_054644, 166 a.a. - 265 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	Wheat Germ
Description	The protein encoded by this gene belongs to the iodothyronine deiodinase family. It catalyzes the conversion of prohormone thyroxine (3,5,3',5'-tetraiodothyronine, T4) to the bioactive thyroid hormone (3,5,3'-triiodothyronine, T3) by outer ring 5'-deiodination. This gene is widely expressed, including in thyroid, placenta, pituitary and brain. It is thought to be responsible for the 'local' production of T3, and thus important in influencing thyroid hormone action in these tissues. It has also been reported to be highly expressed in thyroids of patients with Graves disease, and in follicular adenomas. The intrathyroidal T4 to T3 conversion by this enzyme may contribute significantly to the relative increase in thyroidal T3 production in these patients. This protein is a selenoprotein containing the rare selenocysteine (Sec) amino acid at its active site, and may contain additional Sec residues. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, May 2016]

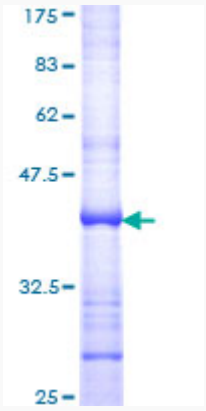
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Molecular Mass	36.74 kDa
AA Sequence	PSDGWAIPGDSSLSFEVKKHQNQEDRCAAAQQLLERFSLPPQCRVVADRMDNNAN IAYGVAFERVCIVQRQKIAYLGGKGPFSYNLQEVRHWLEKNFSKR
Applications	Enzyme-linked Immunoabsorbent Assay Western Blot (Recombinant protein) Antibody Production Protein Array
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name	DIO2 deiodinase, iodothyronine, type II [Homo sapiens]
Official Symbol	DIO2
Synonyms	DIO2; deiodinase, iodothyronine, type II; type II iodothyronine deiodinase; SelY; thyroxine deiodinase; type II; TXDI2; type 2 DI; type-II 5deiodinase; type-II 5-deiodinase; thyroxine deiodinase, type II; type 2 iodothyronine deiodinase; D2; 5DII; DIOII;
Gene ID	1734
mRNA Refseq	NM_000793

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Protein Refseq	NP_000784
MIM	601413
UniProt ID	Q92813
Quality Control Testing:	 12.5% SDS-PAGE Stained with Coomassie Blue.

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