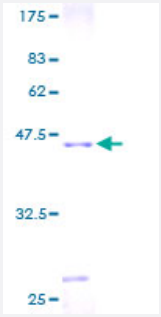
Full-Length

DIO3 (Human) Recombinant Protein (P01)

Catalog # H00001735-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human DIO3 full-length ORF (AAH17717, 1 a.a. - 143 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MLRSLLLHSLRLCAQTASCLVLFPRFLGTAFMLWLLDFLCIRKHFLGRRRRGQPEPEVELNSEGE EVPPDDPPICVSDDNRLCTLASLKAVWHGQKLDFFKQAHEGGPAPNSEVVLPDGFQSQHILDYA QGNRPLVLNFGSCT
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	41.47
Interspecies Antigen Sequence	Mouse (93); Rat (93)
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — DIO3

Entrez GeneID	1735
GeneBank Accession#	BC017717
Protein Accession#	AAH17717
Gene Name	DIO3
Gene Alias	5DIII, D3, DIOIII, TXDI3
Gene Description	deiodinase, iodothyronine, type III
Omim ID	601038
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this intronless gene belongs to the iodothyronine deiodinase family. It catalyzes the inactivation of thyroid hormone by inner ring deiodination of the prohormone thyroxine (T4) and the bioactive hormone 3,3',5-triiodothyronine (T3) to inactive metabolites, 3,3',5'-triiodothyronine (RT3) and 3,3'-diiodothyronine (T2), respectively. This enzyme is highly expressed in the pregnant uterus, placenta, fetal and neonatal tissues, suggesting that it plays an essential role in the regulation of thyroid hormone inactivation during embryological development. This protein contains a selenocysteine (Sec) residue, which is essential for efficient enzyme activity. The selenocysteine is encoded by the UGA codon, which normally signals translation termination. The 3' UTR of Sec-containing genes have a common stem-loop structure, the sec insertion sequence (SECIS), which is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. [provided by RefSeq
Other Designations	iodothyronine deiodinase, placental type|thyroxine deiodinase type III (selenoprotein)|type 3 iodothyronine selenodeiodinase|type-III 5' deiodinase

Disease

- Hypothyroidism
- Psychometrics