

Type III iodothyronine deiodinase Recombinant Protein | IOD3 recombinant protein

Recombinant Rat Type III iodothyronine deiodinase

CATALOG # AAA309793	HOST Yeast	REACTIVITY Rat
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PRODUCT SYNONYMS

Type III iodothyronine deiodinase; Recombinant Rat Type III iodothyronine deiodinase; 5DIII; DIOIII; Type 3 DI; Type-III 5'-deiodinase; IOD3 recombinant protein

PRODUCT SPECIFICATIONS

Host	Yeast
Reactivity	Rat
Purity/Purification	Greater than 90% as determined by SDS-PAGE.
Form/Format	20mM Tris-HCl based buffer, pH8.0
Sequence Positions	: 37-271aa(U132S); Partial, provide the complete extracellular domain.
Sequence	DFQCIRRRVL LTAREESTAE HEDPPLCVSD SNRMCTVESL RAVWHGQKLD YFSAHLGCS APNTEVVMLE GRRLLCKILDF SQGKRPLVVN FGCTSPPFM ARLQAYRRLA AQHVGIAFL LVYIEEAHPS DGLWSTDASY QIPQHQLQD RLAAQLMLQ GAPGCRVVVD TMDNSSNAAAY GAYFERLYIV LEGKVVYQGG RGPEGYKISE LRMWLEQYQQ GLMGTKGSGQ VVIQV
Tag information	EP, YP, BP, MP: Tag type will be determined during the manufacturing process. The expected tag for each expression system is list as follows: YP: N-terminal 6xHis-tagged; EP, BP, MP: N-terminal 10xHis-tagged and C-terminal Myc-tagged
Tag Info	N-terminal 6xHis-tagged
Note	The amino acid at position 132 is originally a "U", which has already been mutated to be "S" in the above sequence. This is due to the "U", or selenocysteine, which is encoded by UGA, is normally used as a stop codon in prokaryotic cells. Thus leading to early termination of translation. So we have substituted this "U" to simply be an "S" so that translation can proceed. Changing to cysteine may result in undesired disulfide bond formation, so serine is chosen since it is structurally related to both selenocysteine and cysteine.
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C. Repeated freezing and thawing is not recommended. Store working aliquots at 4 degree C for up to one week.

ADDITIONAL INFORMATION

Related Product Information for IOD3 recombinant protein	Responsible for the deiodination of T4 (3, 5, 3', 5'-tetraiodothyronine) into RT3 (3, 3', 5'-triiodothyronine) and of T3 (3, 5, 3'-triiodothyronine) into T2 (3, 3'-diiodothyronine). RT3 and T2 are inactive metabolites. May play a role in preventing prature exposure of developing fetal tissues to adult levels of thyroid hormones. Can regulate circulating fetal thyroid hormone concentrations throughout gestation. Essential role for regulation of thyroid hormone inactivation during bryological development.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	255982585
NCBI GeneID	29475
NCBI Accession #	NP_058906.3

NCBI GenBank Nucleotide #	NM_017210.4
UniProt Accession #	P49897
Molecular Weight	29.4kD
NCBI Official Full Name	thyroxine 5-deiodinase
NCBI Official Synonym Full Names	iodothyronine deiodinase 3
NCBI Official Symbol	Dio3
NCBI Official Synonym Symbols	5DIII; DIOIII
NCBI Protein Information	thyroxine 5-deiodinase
UniProt Protein Name	Thyroxine 5-deiodinase
UniProt Gene Name	Dio3
UniProt Synonym Gene Names	Itid3; Txd3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/dio3-recombinant-protein-yeast/309793>