

DIO3 Polyclonal Antibody
Catalog # AP69535**Specification****DIO3 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	P55073
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

DIO3 Polyclonal Antibody - Additional Information**Gene ID** 1735**Other Names**

DIO3; ITDI3; TXDI3; Type III iodothyronine deiodinase; 5DIII; DIOIII; Type 3 DI; Type-III 5'-deiodinase

Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

DIO3 Polyclonal Antibody - Protein Information**Name** DIO3**Synonyms** ITDI3, TXDI3**Function**

Plays a crucial role in the metabolism of thyroid hormones (TH) and has specific roles in TH activation and inactivation by deiodination (PubMed: [7593630](http://www.uniprot.org/citations/7593630), PubMed: [12586771](http://www.uniprot.org/citations/12586771), PubMed: [12746313](http://www.uniprot.org/citations/12746313), PubMed: [18821722](http://www.uniprot.org/citations/18821722)). Catalyzes the deiodination of L-thyroxine (T4) to 3,3',5'-triiodothyronine (rT3), 3,5,3'-triiodothyronine (T3) to 3,3'- diiodothyronine (3,3'-T2), 3,5-diiiodothyronine (3,5-T2) to 3- monoiodothyronine (3-T1), rT3 to 3',5'-diiiodothyronine (3',5'-T2) and 3,3'-T2 to 3'-monoiodothyronine (3'-T1) via inner-ring deiodination (IRD) (PubMed: [7593630](http://www.uniprot.org/citations/7593630), PubMed: [12586771](http://www.uniprot.org/citations/12586771), PubMed: [12746313](http://www.uniprot.org/citations/12746313), PubMed: [18821722](http://www.uniprot.org/citations/18821722), PubMed: [18339710](http://www.uniprot.org/citations/18339710))

target="_blank">18339710). Catalyzes the deiodination of 3-T1 to L-thyronine (T0) via outer-ring deiodination (ORD) (PubMed:18821722). Catalyzes the tyrosyl ring deiodinations of 3,3',5,5'-tetraiodothyronamine, 3,3',5'-triiodothyronamine, 3,5,3'- triiodothyronamine, 3,5-diiodothyronamine, 3,3'-diiodothyronamine and 3-iodothyronamine (PubMed:18339710).

Cellular Location

Cell membrane; Single-pass type II membrane protein. Endosome membrane; Single-pass type II membrane protein

Tissue Location

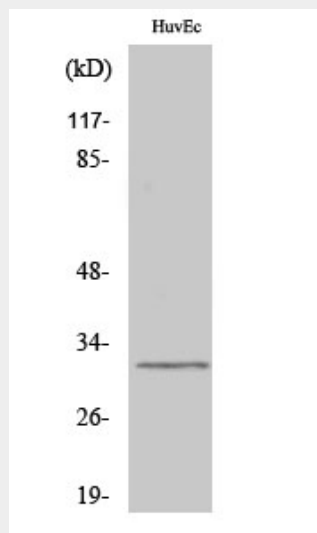
Expressed in placenta and several fetal tissues.

DIO3 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DIO3 Polyclonal Antibody - Images



DIO3 Polyclonal Antibody - Background

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 premature 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 embryological development.