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DIO3 Polyclonal Antibody

Catalog # AP69535

Product Information

Application WB Primary Accession P55073

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW33947

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

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, PubMed: 12586771, PubMed: 12746313,

PubMed: 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-diiodothyronine (3,5-T2) to 3-

monoiodothyronine (3-T1), rT3 to 3',5'-diiodothyronine (3',5'-T2) and 3,3'-T2 to

3'-monoiodothyronine (3'-T1) via inner-ring deiodination (IRD) (PubMed: 7593630, PubMed: 12586771, PubMed: 12746313,

PubMed:<u>18821722</u>, PubMed:<u>18339710</u>). Catalyzes the deiodination of 3-T1 to L-thyronine (T0) via outer-ring deiodination (ORD) (PubMed:<u>18821722</u>). Catalyzes the tyrosyl ring deiodinations of 3,3',5,5'-tetraiodothyronamine, 3,5,5'-triiodothyronamine, 3,5'-triiodothyronamine, 3,5'-tr

3,3'-diiodothyronamine and 3-iodothyronamine (PubMed: 18339710).

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

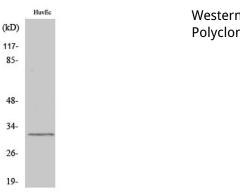
Single-pass type II membrane protein

Tissue Location Expressed in placenta and several fetal tissues.

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.

Images



Western Blot analysis of various cells using DIO3 Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.