

Summary

Production Name	DIO3 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	DIO3
Alternative Names	DIO3; ITDI3; TXDI3; Type III iodothyronine deiodinase; 5DIII; DIOIII; Type 3 DI; Type-III 5'-deiodinase
Gene ID	1735.0
SwissProt ID	P55073.The antiserum was produced against synthesized peptide derived from human DIO3. AA range:17-66

Application

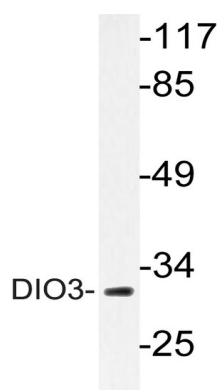
Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000
Molecular Weight	31kD

Background

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 pregnant uterus, placenta, fetal and neonatal tissues, and thought to prevent premature exposure of developing fetal tissues to adult levels of thyroid hormones. It regulates circulating fetal thyroid hormone concentrations, and thus plays a critical role in mammalian development. Knockout mice lacking this gene exhibit abnormalities related to development and reproduction, and increased activity of this enzyme in infants with hemangiomas causes severe hypothyroidism. This proteolytic activity: 3,3',5'-triiodo-L-thyronine + iodide + A + H(+) = L-thyroxine + AH(2).,function: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.,function:Responsible for the deiodination of T4 (3,5,3',5'-tetraiodothyronine),similarity:Belongs to the iodothyronine deiodinase family.,tissue specificity:Expressed in placenta and several fetal tissues.,

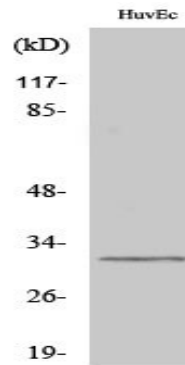
Research Area

Image Data



Western blot analysis of lysate from HUVEC cells, using DIO3 antibody.

Product Name: DIO3 Rabbit Polyclonal Antibody
Catalog #: APRab09985



Western Blot analysis of various cells using DIO3 Polyclonal Antibody

Note

For research use only.