

Rabbit anti-Human DIO3 Polyclonal Antibody | anti-DIO3 antibody

DIO3 Antibody (C-term)

CATALOG # AAA286040	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunohistochemistry, ELISA, Western Blot
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PRODUCT SYNONYMS

DIO3; Polyclonal Antibody; DIO3 Antibody (C-term); Type III iodothyronine deiodinase; 5DIII; DIOIII; Type 3 DI; Type-III 5'-deiodinase; ITDI3; TXDI3; anti-DIO3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This DIO3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 250-278 amino acids from the C-terminal region of human DIO3.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Concentration	Vial Concentration: 0.5 (varies by lot)
Sequence Positions	250-278
Sequence Length	304
Applicable Applications for anti-DIO3 antibody	IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with DIO3 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



WB (Western Blot)

Western blot analysis of DIO3 Antibody (C-term) in HepG2 cell line lysates (35ug/lane). DIO3 (arrow) was detected using the purified Pab.

ADDITIONAL INFORMATION

Related Product Information for anti-DIO3 antibody	DIO3 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.
Product Categories/Family for anti-DIO3 antibody	Cancer; Metabolism; Neuroscience; Signal transduction
References	Bessho, K., et al. Eur. J. Pediatr. 169(2):215-221(2010) Wallace, C., et al. Nat. Genet. 42(1):68-71(2010) Aerts, G., et al. Endocrinology 150(11):5171-5180(2009) Panicker, V., et al. J. Clin. Endocrinol. Metab. 94(5):1623-1629(2009) Panicker, V., et al. J. Clin. Endocrinol. Metab. 93(8):3075-3081(2008)

NCBI AND UNIPROT INFORMATION

NCBI GI #	255958313
NCBI GeneID	1735
NCBI Accession #	NP_001353.4
NCBI GenBank Nucleotide #	NM_001362.3
UniProt Accession #	P55073; Q8WVN5; G3XAM0
Molecular Weight	33947
NCBI Official Full Name	type III iodothyronine deiodinase
NCBI Official Synonym Full Names	deiodinase, iodothyronine, type III
NCBI Official Symbol	DIO3
NCBI Official Synonym Symbols	D3; 5DIII; TXDI3; DIOIII
NCBI Protein Information	type III iodothyronine deiodinase
UniProt Protein Name	Type III iodothyronine deiodinase
UniProt Gene Name	DIO3
UniProt Synonym Gene Names	ITDI3; TXDI3
UniProt Entry Name	IOD3_HUMAN

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.