

Datasheet for ABIN7599988
anti-DIO1 antibody (AA 137-249)



[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	DIO1
Binding Specificity:	AA 137-249
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This DIO1 antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FACS)

Product Details

Purpose:	Anti-DIO1 Antibody Picoband®
Immunogen:	E.coli-derived human DIO1 recombinant protein (Position: K137-S249).
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-DIO1 Antibody Picoband® (ABIN7599988). Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	DIO1
Alternative Name:	DIO1 (DIO1 Products)
Background:	Synonyms: Type I iodothyronine deiodinase, 5DI, DIOI, Type 1 DI, Type-I 5'-deiodinase, DIO1, ITDI1, TXDI1 Tissue Specificity: Widely expressed in adult (at protein level) and fetal tissues. Background: Type I iodothyronine deiodinase is a protein that in humans is encoded by the DIO1 gene. It is mapped to 1p32.3. The protein encoded by this gene belongs to the iodothyronine deiodinase family. It catalyzes the activation, as well as the inactivation of thyroid hormone by outer and inner ring deiodination, respectively. The activation reaction involves the conversion of the prohormone thyroxine (3,5,3',5'-tetraiodothyronine, T4), secreted by the thyroid gland, to the bioactive thyroid hormone (3,5,3'-triiodothyronine, T3) by 5'-deiodination. This protein provides most of the circulating T3, which is essential for growth, differentiation and basal metabolism in vertebrates. This protein is a selenoprotein, containing the rare amino acid selenocysteine (Sec) at its active site. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Alternatively spliced transcript variants have been found for this gene.
Molecular Weight:	29 kDa
Gene ID:	1733
UniProt:	P49895
Pathways:	Hormone Activity

Application Details

Application Notes:	Western blot, 0.25-0.5 µg/mL, Human, Rat Immunocytochemistry/Immunofluorescence, 2 µg/mL, Human Flow Cytometry (Fixed), 1-3 µg/1x10⁶ cells, Human, Mouse ELISA, 0.1-0.5 µg/mL, - 1. Berry, M. J., Banu, L., Larsen, P. R. Type I iodothyronine deiodinase is a selenocysteine-containing enzyme. Nature 349: 438-440, 1991. 2. Berry, M. J., Grieco, D., Taylor, B. A., Maia, A. L., Kieffer, J. D., Beamer, W., Glover, E., Poland, A., Larsen, P. R. Physiological and genetic analyses of inbred mouse strains with a type I iodothyronine 5-prime deiodinase deficiency. J. Clin. Invest. 92: 1517-1528, 1993. 3. de Jong, F. J., Peeters, R. P., den Heijer, T., van der Deure,
--------------------	--

Application Details

W. M., Hofman, A., Uitterlinden, A. G., Visser, T. J., Breteler, M. M. B. The association of polymorphisms in the type 1 and 2 deiodinase genes with circulating thyroid hormone parameters and atrophy of the medial temporal lobe. J. Clin. Endocr. Metab. 92: 636-640, 2007.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg NaN₃.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C,-20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.