Product Datasheet

DIO3 Antibody - BSA Free
NB110-96414

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Publications: 8

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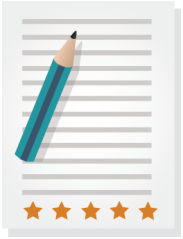
Updated 2/21/2025 v.20.1



NB110-96414

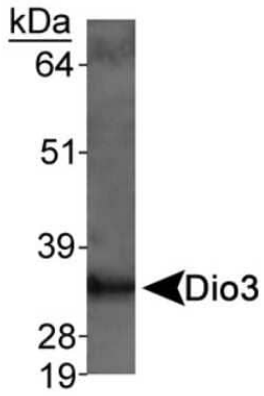
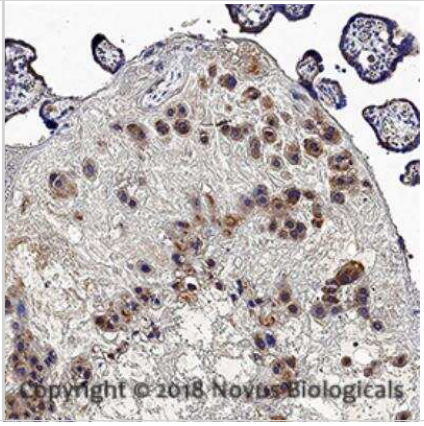
DIO3 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	31 kDa

Product Description	
Host	Rabbit
Gene ID	1735
Gene Symbol	DIO3
Species	Human, Mouse, Rat, Hamster
Reactivity Notes	Human reactivity was confirmed in PMID 22723689.
Immunogen	Synthetic peptide made to an internal portion of rat DIO3 (within residues 1-100). [Swiss-Prot# P49897]

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 0.5 ug/ml, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:10-1:500. Use reported in scientific literature (PMID 21828183)
Application Notes	In Western blot, a band is seen ~31 kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

Western Blot: DIO3 Antibody [NB110-96414] - Detection of Dio3 in rat placenta	
Immunohistochemistry-Paraffin: DIO3 Antibody [NB110-96414] - IHC analysis of a formalin fixed paraffin-embedded (FFPE) human placenta using 1:50 dilution of DIO3 antibody on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) using 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching with peroxide block. The sections were incubated with primary antibody for 30 minutes and Bond Polymer Refine Detection (Leica Biosystems) with DAB was used for signal development followed by counterstaining with hematoxylin. Whole slide scanning and capturing of representative images (20X) was performed using Aperio AT2 (Leica Biosystems). Cytoplasmic staining in decidual cells was observed. Staining was performed by Histowiz.	

Publications

Kakita-Kobayashi M, Murata H, Nishigaki A, Hashimoto Y et Al. Thyroid Hormone Facilitates in vitro Decidualization of Human Endometrial Stromal Cells via Thyroid Hormone Receptors Endocrinology 2020-04-04 [PMID: 32242219]

Fiore R, La Rosa S, Uccella S et al. Consumptive hypothyroidism in a patient with malignant rhabdoid tumor of the kidney: case report on a newly found association European Thyroid Journal 2022-10-01 [PMID: 36053775] (Immunohistochemistry, Immunohistochemistry-Paraffin)

Dudek KM, Suter L, Darras VM et al. Decreased translation of Dio3 mRNA is associated with drug-induced hepatotoxicity. Biochem J 2013-07-01 [PMID: 23586759] (WB, Rat)

Langford D, Baron D, Joy J et al. Contributions of HIV infection in the hypothalamus and substance abuse/use to HPT dysregulation Psychoneuroendocrinology 2011-06-01 [PMID: 21115295] (IF/IHC, WB, ICC/IF, Human)

Shukla PK, Sittig LJ, Ullmann TM, Redei EE. Candidate placental biomarkers for intrauterine alcohol exposure Alcohol Clin Exp Res 2011-03-01 [PMID: 21143252] (WB, Rat)

Jo S, Kallo I, Bardoczi Z, Arrojo E et al. Neuronal Hypoxia Induces Hsp40-Mediated Nuclear Import of Type 3 Deiodinase As an Adaptive Mechanism to Reduce Cellular Metabolism J Neurosci 2012-06-20 [PMID: 22723689] (WB, Hamster, Human)

Medina MC, Molina J, Gadea Y et al. The Thyroid Hormone-Inactivating Type III Deiodinase Is Expressed in Mouse and Human {beta}-Cells and Its Targeted Inactivation Impairs Insulin Secretion. Endocrinology. 2011-08-09 [PMID: 21828183]

Freitas BC, Gereben B, Castillo M et al. Paracrine signaling by glial cell-derived triiodothyronine activates neuronal gene expression in the rodent brain and human cells. J Clin Invest 2010-06-01 [PMID: 20458138] (IF/IHC, Mouse, Rat)

Details:
Using the Biotin conjugated version of NBP1-05767, catalog number NBP1-05767B.

Procedures

Serum protocol for DIO3 Antibody (NB110-96414)
DIO3 Antibody:
Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-Dio3 primary antibody (NB 110-96414) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

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Products Related to NB110-96414

NB110-96414PEP	DIO3 Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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