

ARG42701 anti-DIO1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes DIO1
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	DIO1
Species	Human
Immunogen	Recombinant protein corresponding to K137-S249 of Human DIO1.
Conjugation	Un-conjugated
Alternate Names	EC 1.97.1.10; Type I iodothyronine deiodinase; TXDI1; DIOI; 5DI; Type-I 5'-deiodinase; Type 1 DI

Application Instructions

Application table	Application	Dilution
	FACS	1:150 - 1:500
	ICC/IF	1:200 - 1:1000
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 29 kDa	

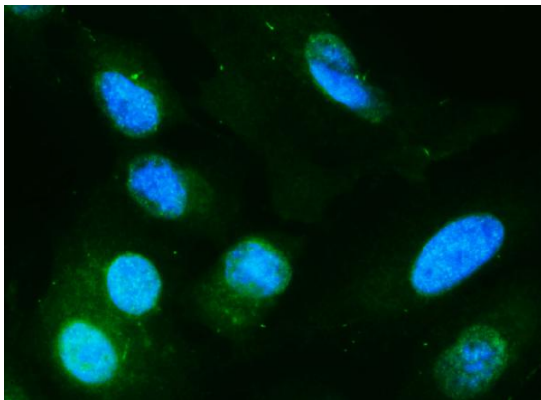
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na ₂ HPO ₄ , 0.9% NaCl, 0.01% Sodium azide and 4% Trehalose.
Preservative	0.01% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

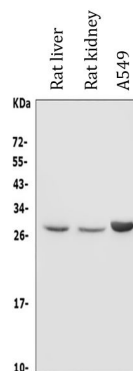
Gene Symbol	DIO1
Gene Full Name	deiodinase, iodothyronine, type I
Background	The protein encoded by this gene belongs to the iodothyronine deiodinase family. It catalyzes the activation, as well as the inactivation of thyroid hormone by outer and inner ring deiodination, respectively. The activation 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. [provided by RefSeq, Jun 2018]
Function	Responsible for the deiodination of T4 (3,5,3',5'-tetraiodothyronine) into T3 (3,5,3'-triiodothyronine) and of T3 into T2 (3,3'-diiodothyronine). Plays a role in providing a source of plasma T3 by deiodination of T4 in peripheral tissues such as liver and kidney. [UniProt]
Calculated Mw	29 kDa
Cellular Localization	Endoplasmic reticulum membrane; Single-pass membrane protein. [UniProt]

Images



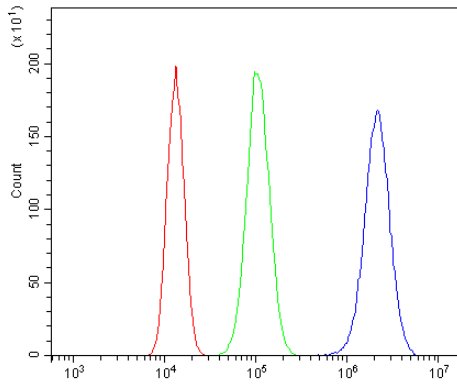
ARG42701 anti-DIO1 antibody ICC/IF image

Immunofluorescence: A549 cells were blocked with 10% goat serum and then stained with ARG42701 anti-DIO1 antibody (green) at 2 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



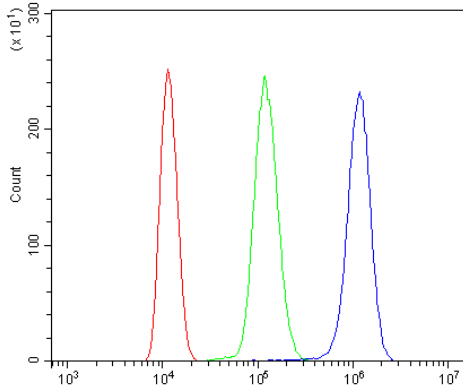
ARG42701 anti-DIO1 antibody WB image

Western blot: 50 µg of samples under reducing condition. Rat liver, Rat kidney and A549 whole cell lysates stained with ARG42701 anti-DIO1 antibody at 0.5 µg/ml dilution, overnight at 4°C.



ARG42701 anti-DIO1 antibody FACS image

Flow Cytometry: 293T cells were blocked with 10% normal goat serum and then stained with ARG42701 anti-DIO1 antibody (blue) at 1 $\mu\text{g}/10^6$ cells for 30 min at 20°C, followed by incubation with DyLight[®]488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 $\mu\text{g}/10^6$ cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



ARG42701 anti-DIO1 antibody FACS image

Flow Cytometry: ANA-1 cells were blocked with 10% normal goat serum and then stained with ARG42701 anti-DIO1 antibody (blue) at 1 $\mu\text{g}/10^6$ cells for 30 min at 20°C, followed by incubation with DyLight[®]488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 $\mu\text{g}/10^6$ cells) used under the same conditions. Unlabelled sample (red) was also used as a control.