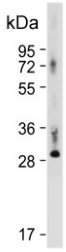
Thyroxine 5-deiodinase Antibody / DIO3 (F55036)

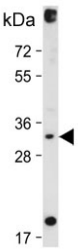
Catalog No.	Formulation	Size
F55036-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F55036-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

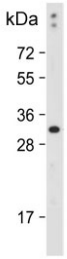
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
UniProt	P55073
Localization	Cytoplasmic, cell membrane
Applications	Western Blot : 1:1000-1:2000 IHC : Immunohistochemistry (FFPE) : 1:50-1:100
Limitations	This Thyroxine 5-deiodinase antibody is available for research use only.



Western blot testing of human placental tissue lysate with Thyroxine 5-deiodinase antibody. Predicted molecular weight ~34 kDa, routinely observed at 31-37 kDa.



Western blot testing of human HepG2 cell lysate with Thyroxine 5-deiodinase antibody. Predicted molecular weight ~34 kDa, routinely observed at 31-37 kDa.



Western blot testing of rat skeletal muscle tissue lysate with Thyroxine 5-deiodinase antibody. Predicted molecular weight ~34 kDa, routinely observed at 31-37 kDa.

IHC testing of FFPE human hepatocellular carcinoma tissue with Thyroxine 5-deiodinase antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.

Description

DIO3 / Thyroxine 5-deiodinase 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.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Thyroxine 5-deiodinase antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 250-278 from the human protein was used as the immunogen for the Thyroxine 5-deiodinase antibody.

Storage

Aliquot the Thyroxine 5-deiodinase antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.