

## DIO3

**Reactivity:**Human

**Tested applications:**WB IHC

**Recommended Dilution:**WB 1:500 - 1:2000 IHC 1:50 - 1:200

**Calculated MW:**34kDa

**Observed MW:**Refer to figures

**Immunogen:**

Recombinant protein of human DIO3

**Storage Buffer:**

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Synonym:**

D3; 5DIII; TXDI3; DIOIII;

**Catalog #:**A6900

**Antibody Type:**

Polyclonal Antibody

**Species:**Rabbit

**Gene ID:**1735

**Isotype:**IgG

**Swiss Prot:**P55073

**Purity:**Affinity purification

For research use only.

**Background:**

The protein encoded by this intronless gene 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.

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