

## **Product datasheet for RC210659L2**

#### OriGene Technologies, Inc.

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### Thyroid Peroxidase (TPO) (NM\_000547) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Thyroid Peroxidase (TPO) (NM\_000547) Human Tagged Lenti ORF Clone

Tag: mGFP

**Symbol:** Thyroid Peroxidase

Synonyms: MSA; TDH2A; TPX

Mammalian Cell None

Selection:

**Vector:** pLenti-C-mGFP (PS100071)

E. coli Selection: Chloramphenicol (34 ug/mL)

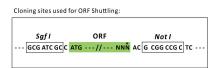
ORF Nucleotide

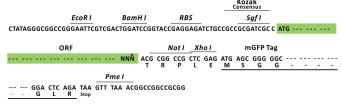
The ORF insert of this clone is exactly the same as(RC210659).

Sequence:

**Restriction Sites:** Sgfl-Notl

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_000547

ORF Size: 2799 bp



### Thyroid Peroxidase (TPO) (NM\_000547) Human Tagged Lenti ORF Clone - RC210659L2

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:** 1. Centrifuge at 5,000xg for 5min.

2p25.3

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

**RefSeq:** <u>NM 000547.3</u>

 RefSeq Size:
 3152 bp

 RefSeq ORF:
 2802 bp

 Locus ID:
 7173

 UniProt ID:
 P07202

Cytogenetics:

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Hematopoietic cell

lineage, Jak-STAT signaling pathway, Metabolic pathways, Tyrosine metabolism

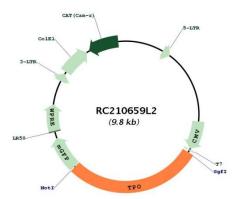
MW: 102.9 kDa

**Gene Summary:** This gene encodes a membrane-bound glycoprotein. The encoded protein acts as an enzyme

and plays a central role in thyroid gland function. The protein functions in the iodination of tyrosine residues in thyroglobulin and phenoxy-ester formation between pairs of iodinated tyrosines to generate the thyroid hormones, thyroxine and triiodothyronine. Mutations in this gene are associated with several disorders of thyroid hormonogenesis, including congenital hypothyroidism, congenital goiter, and thyroid hormone organification defect IIA. Multiple transcript variants encoding distinct isoforms have been identified for this gene, but the full-length nature of some variants has not been determined. [provided by RefSeq, May 2011]



# **Product images:**



Circular map for RC210659L2