Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

L-Thyroxine

Catalog No: tcsc1819

Available Sizes

Size: 500mg

Size: 1g

Specifications

CAS No:
51-48-9

Formula:
$C_{15}H_{11}I_4NO_4$

Pathway:
Others;Metabolic Enzyme/Protease

Target:
Thyroid Hormone Receptor;Endogenous Metabolite

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 28 mg/mL (36.04 mM)

Alternative Names:
Levothyroxine;T4

Observed Molecular Weight:
776.87

Product Description

L-Thyroxine (Levothyroxine; T4) is a synthetic hormone in the treatment of hypothyroidism. DIO enzymes convert biologically active thyroid hormone (Triiodothyronine,T3) from L-Thyroxine (T4).

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IC50 & Target: Thyroid Hormone Receptor

In Vivo: Deiodinases (DIOs), which catalyse the conversion of thyroxine (pro-hormone) to the active thyroid hormone, are associated with thyroid stimulating hormone (TSH) levels. DIO1 and DIO2 catalyze activation of thyroid hormone secretion in contrast to DIO3 playing role inactivation of the secretion. Activities of DIO1 and DIO2 play pivotal role in the negative feedback regulation of pituitary TSH secretion[1]. L-Thyroxine (T4) and Triiodothyronine (T3) hormones are known to modulate the expression of ionic channels, pumps and regulatory contractile proteins. Moreover, thyroid hormones have been shown to influence calcium homeostasis and flux responsible for excitation and contractility, with L-Thyroxine and Triiodothyronine modulating its pharmacological control and secretion. In rats fed 12 weeks with the iodine-free diet, a significant decrease in the levels of both Triiodothyronine and L-Thyroxine is observed when compared to the control group fed with standard diet (p[2].