

Human ReverseTri-iodothyronine (RT3) ELISA Kit

Catalog No: #EK7503



Package Size: #EK7503-1 48T #EK7503-2 96T

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Description

Product Name	Human ReverseTri-iodothyronine (RT3) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

Application Details

Detect Range:74.07-6000 pg/mL

Sensitivity:27.55 pg/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate RT3 in samples. An antibody specific for RT3 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyRT3 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for RT3 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of RT3 bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**Reverse triiodothyronine is a molecule which is an isomer of triiodothyronine (T3). It is derived from thyroxine (T4) through the action of deiodinase.rT3, unlike T3, does not stimulate thyroid hormone receptors. However, rT3 nonetheless binds to these receptors, thereby blocking the action of T3. Under stress conditions, the adrenal glands produce excess amounts of cortisol. Cortisol inhibits the conversion of T4 to T3, thus shunting T4 conversion from T3 towards rT3.

Consequently, there is a widespread shutdown in T3 binding across the body. This condition is termed Reverse T3 Dominance. It results in reduced body temperature, which slows the action of many enzymes, leading to a clinical syndrome, Multiple Enzyme Dysfunction, which produces the effects seen in hypothyroidism. Effects include fatigue, headache, migraine, PMS, irritability, fluid retention, anxiety and panic.

Note: This product is for in vitro research use only