



Thyroxine (T4) [AP] (DAG-WT229)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Conjugate	AP
Applications	Immunoassays
Format	Liquid
Concentration	Batch dependent - please inquire should you have specific requirements.
Size	50 Units
Buffer	7mM PBS with 0.05% NaN ₃
Preservative	None
Storage	Store at 4 °C.

BACKGROUND

Introduction	<p>The thyroid hormones, triiodothyronine (T3) and its prohormone, thyroxine (T4), are tyrosine-based hormones produced by the thyroid gland that are primarily responsible for regulation of metabolism. Iodine is necessary for the production of T3 and T4. A deficiency of iodine leads to decreased production of T3 and T4, enlarges the thyroid tissue and will cause the disease known as simple goitre. The major form of thyroid hormone in the blood is thyroxine (T4), which has a longer half-life than T3. The ratio of T4 to T3 released into the blood is roughly 20 to 1. T4 is converted to the active T3 (three to four times more potent than T4) within cells by deiodinases (5'-iodinase). These are further processed by decarboxylation and deiodination to produce iodothyronamine (T1a) and thyronamine (T0a). All three isoforms of the deiodinases are selenium-containing enzymes, thus dietary selenium is essential for T3 production.</p>
Keywords	Thyroxine; Tetraiodothyronine; T4; Hormone