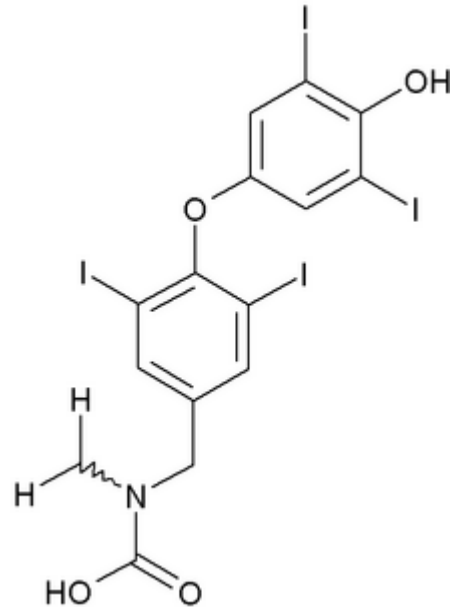


# Application Note: Levothyroxine Sodium

Levothyroxine sodium is the sodium salt of levothyroxine, a synthetic form of thyroxine. It is primarily used in the treatment of hypothyroidism (commonly known as an underactive thyroid), where the thyroid gland produces insufficient quantities of hormones T3 and T4.

Thyroid hormones are vital within the body as they increase the metabolic rate of several cells and maintain brain function and body temperature. Levothyroxine sodium is one of the most common drugs in the world, and in 2017 was the second most prescribed drug in the USA.

This application shows the use of an Horizon Cyano column for the analysis of levothyroxine sodium in accordance with the official Levothyroxine Sodium USP monograph.



**Column:** Horizon CYANO 5 $\mu$  250x4.6mm

Mobile Phase: 65:35

A: Water (0.05% Phosphoric acid)

B: Acetonitrile

Flow rate: 1.0 ml/min

Wavelength: 225nm

Temperature: 20°C

