

# Congenital hypothyroidism screening



PerkinElmer's assays for its DELFIA® and AutoDELFLIA® platforms are globally the most widely used and trusted tools for congenital hypothyroidism (CH) screening. To suit alternative strategies, assays are available for both Thyroid Stimulating Hormone (TSH) and Thyroxine (T4). In 2006 DELFIA or AutoDELFLIA Neonatal TSH kits were sold in 65 countries, while the corresponding T4 products were chosen in 19 countries.

## High performance, reliable CH screening tools

The analytical sensitivity of PerkinElmer's Neonatal TSH assay is 2  $\mu\text{U/mL}$  and that of T4 is 1.5  $\mu\text{g/dL}$ . Intra-assay imprecision for TSH is close to 6%, while for T4 it is 10% using AutoDELFLIA and 6% using the manual DELFIA platform. All calibrators and controls are lot-specific to ensure that every lot is of the same high standard. On both platforms and with both assays, PerkinElmer has taken every step needed to assure the highest standards of reliability and safety in screening for CH.

## AutoDELFLIA® TSH and T4 - assays - a robust, cost effective solution

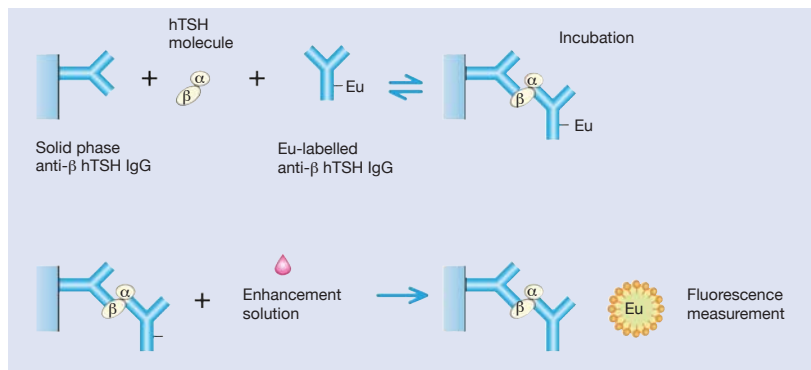
The AutoDELFLIA fully automated system allows for sensitive and specific quantitation of TSH and T4 in dried blood samples, and brings robustness, reliability and cost-effectiveness to your CH screening program.

## Early diagnosis for healthy life

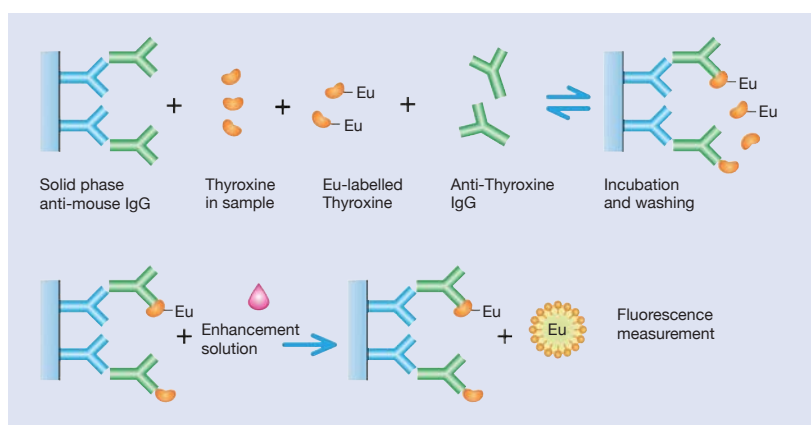
Severe congenital hypothyroidism can be found in 1 in 4000 newborns while the milder forms are more frequent. CH results from a failure of the thyroid glands to produce thyroid hormones in adequate amounts. The condition can easily be treated with daily doses of thyroxine but clinical diagnosis is difficult to establish and the disease may continue unrecognized for a long time causing irreversible brain damage. However, increased TSH and decreased T4 are clear signs of CH, which have led to the establishment of large scale screening programs.

PerkinElmer's Neonatal TSH and T4 assays are used with dried blood spot specimens as an aid in screening newborns for congenital hypothyroidism.

# Both analytes available on both manual DELFIA® and automatic AutoDELFLIA® platforms



The Neonatal hTSH assay is based on a direct sandwich technique where two monoclonal antibodies recognize separate antigenic determinants on the hTSH molecule. The fluorescence signal is proportional to the analyte concentration in the sample.



In the Neonatal T4 assay the analyte competes with europium-labeled T4 for the binding sites on T4 specific monoclonal antibodies and the fluorescence signal is inversely proportional to the analyte concentration in the sample.

## Ordering information

- A032-310 DELFIA® Neonatal hTSH
- B032-312 AutoDELFLIA® Neonatal hTSH
- A065-110 / A065-210 DELFIA® Neonatal Thyroxine (T4)
- B065-112 / B065-212 AutoDELFLIA® Neonatal Thyroxine (T4)



All PerkinElmer neonatal products may not be available in all countries.

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For a complete listing of our global offices, visit [www.perkinelmer.com/lasoffices](http://www.perkinelmer.com/lasoffices)

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