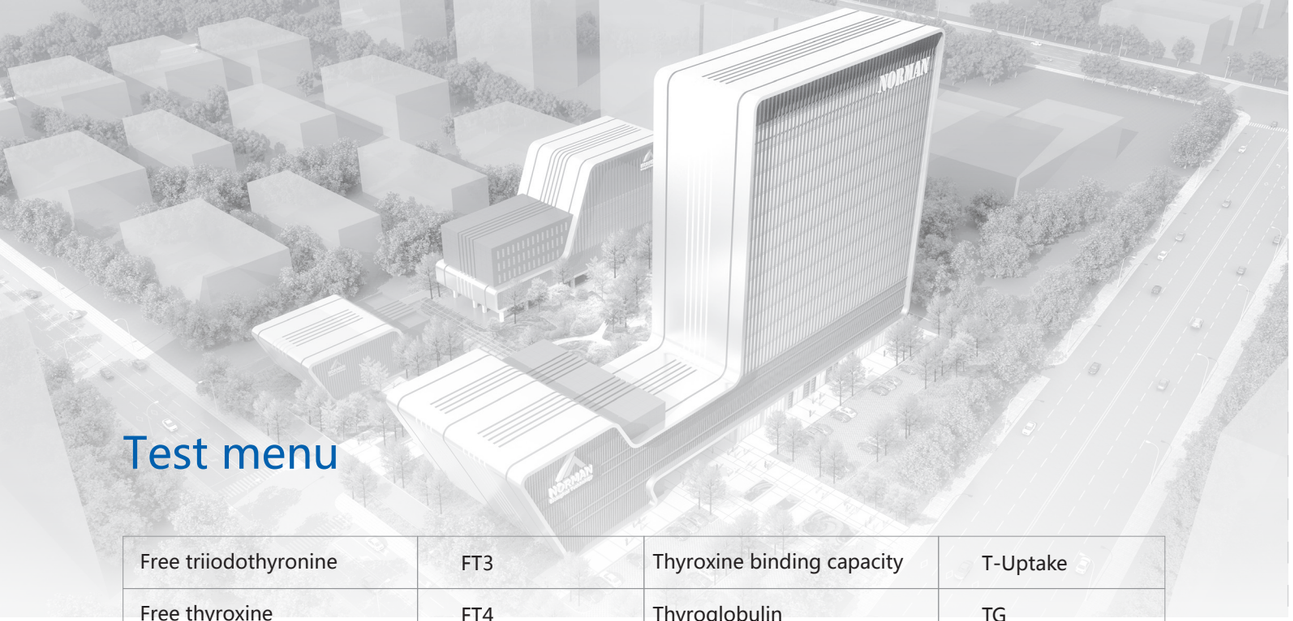

Test menu

Free triiodothyronine	FT3	Thyroxine binding capacity	T-Uptake
Free thyroxine	FT4	Thyroglobulin	TG
Thyrotropin	TSH	Thyroid microsomal antibody	TMAb
Total triiodothyronine	TT3	Thyrotropin receptor antibody	TRAb
Total thyroxine	TT4	Reverse triiodothyronine	rT3
Thyroglobulin antibody	TGAb	Thyroid Binding Globulin	TBG
Thyroid peroxidase antibody	TPOAb	——	——

Reference：

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Biological Technology

NANJING NORMAN BIOLOGICAL TECHNOLOGY CO., LTD.

No. 197 Pharmaceutical Valley Road, Jiangbei New District, Nanjing, China

Marketing: +86 13776567123 (Tel/Whatsapp/Wechat)
Sales: +86 18155572138 (Tel/Whatsapp/Wechat)
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Thyroid biomarkers 13 parameters

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☑ Complete portfolio covering common thyroid disorders ☑ Distinguish between types of thyroid disease

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What is thyroid ?

The thyroid gland is the largest endocrine gland in the human body, located in the neck below the thyroid cartilage and on both sides of the trachea. It synthesises and secretes thyroxine (T4) and a small amount of triiodothyronine (T3), which plays an important role in the body's metabolism, especially lipid metabolism and carbohydrate metabolism, as well as in the process of growth and development.

Types of thyroid disease

There are several types of thyroid disease, each of which impacts the production of vital hormones that lead to hypo- and hyperthyroidism. Types of thyroid disease include:

Hyperthyroidism: When the thyroid produces hormones in excess
Hypothyroidism: When the thyroid does not produce enough hormones
Hashimoto's thyroiditis: An autoimmune disorder that causes the thyroid gland to become inflamed, leading to hypothyroidism and swelling (goiter)
Graves' disease: An autoimmune disorder that leads to hyperthyroidism
Thyroid tumors: Noncancerous growths, such as nodules or adenomas, that grow from the lining of the thyroid gland and can release excess thyroid hormones
Thyroid cancer: Cancer of the thyroid
Postpartum thyroiditis: Thyroid inflammation following the birth of a child

Thyroid disease by Age and Sex

Thyroid disease becomes more common as people age. Hypothyroidism is most often diagnosed between the ages of 30 and 50. Hyperthyroidism diagnoses are most common between ages 20 and 40.

Thyroid disease is significantly more common in women. Hypothyroidism is believed to be about 9 times more common in people assigned female at birth. Hyperthyroidism is believed to be between 2 and 10 times more likely in females. It's estimated that about 1 in every eight women will develop thyroid problems, compared to 1 in 17 for the total population.

Advantages of Norman's reagents

All-in-one test for thyroid dysfunction, covering common thyroid disorders

Paremeters	Clinical applications
TSH、FT4、FT3	Initial determination of thyroid disorders: hypothyroidism, hyperthyroidism, etc., for initial functional screening in healthy populations.
TSH、FT4、FT3、TT4、TT3	Determination of thyroid disorders: hypothyroidism, hyperthyroidism, subclinical hypothyroidism, subclinical hyperthyroidism, etc.; monitoring of medical therapy in patients with established diagnoses.
TSH、FT4、FT3、TT4、TT3、 TPOAb、TGAb	Increased biomakers to analyze the causes of thyroid dysfunction and diagnose Graves' disease, Hashimoto's thyroiditis, etc., making it suitable for diagnosing thyroid disorders in high-risk groups.
TSH、FT4、FT3、TT4、TT3、TPOAb、TGAb、TG、T-Uptake、 TMAb、TRAb、rT3、TBG	Covers common thyroid disorders: thyroid dysfunction, Graves' disease, Hashimoto's thyroiditis, differentiated thyroid cancer, normal thyroid pathology syndrome, thyroid disorders in pregnancy, etc.

Distinguish between types of thyroid disease

TRAb: TRAb is strongly associated with the development of Garves' disease and autoimmune hypothyroidism, with a positive detection rate of 80-100% for Graves' disease.

TMAb: In chronic lymphocytic thyroiditis, the positivity rate is 70-95 per cent, especially in asymptomatic chronic lymphocytic thyroiditis, where only TMAb is elevated; in Graves' disease, TMAb may be moderately elevated, with a positivity rate of 50-85 per cent.

rT3: It reflects the state of thyroid function and hormone regulation. Elevated levels are usually seen in hyperthyroidism and non-thyroidal illness syndrome (NTIS); lowered levels are seen in hypothyroidism and inflammation of the thyroid gland.

TBG: The main transporter protein of thyroid hormones in plasma, mainly acting as a storage depot for extra-thyroidal T4 and T3. Elevation can be seen in pregnancy, viral hepatitis, hereditary TBG hyperintensities, etc.; Decrease can be seen in hypoproteinaemia, hereditary TBG deficiencies, etc.