Medix Biochemica

**Product specification**
**ANTIBODY**
2023-01-02

# Anti-h TSH 5404 SP-5

## Product overview

| | |
|---|---|
| **Catalog number** | 100026 |
| **Specificity** | Antibody recognizes human thyrotropin and its free beta subunit |
| **Description** | Monoclonal mouse antibody, cultured *in vitro* under conditions free from animal-derived components. |
| **Product buffer solution** | 0.9 % NaCl, 0.095 % $NaN_3$ as a preservative |
| **Shelf life and storage** | 36 months from manufacturing at 2–8 °C |
| **Subclass** | $IgG_1$ |
| **Analyte description** | Thyroid-stimulating hormone (also known as TSH or thyrotropin) is a peptide hormone synthesized and secreted by thyrotrope cells in the anterior pituitary gland which regulates the endocrine function of the thyroid gland. TSH levels are tested in the blood of patients suspected of suffering from excess (hyperthyroidism), or deficiency (hypothyroidism) of thyroid hormone. |

## Parameters tested on each lot

| | |
|---|---|
| **Product appearance** | Liquid, may turn slightly opaque during storage |
| **Product concentration** | 5.0 mg/ml (+/- 10 %) |
| **Immunoreactivity** | 80–120 % compared to the reference sample in an FIA test |
| **IEF Profile** | 6.6–7.2 |
| **Purity** | ≥ 95 % |

## Kinetic parameters

| | |
|---|---|
| **Association rate constant** | $8.5 \times 10^5$ 1/Ms |
| **Dissociation rate constant** | $3.9 \times 10^{-5}$ 1/s |
| **Affinity constant** | $K_A = 2.2 \times 10^{10}$ 1/M; $K_D = 4.6 \times 10^{-11}$ M (= 0.05 nM) |
| **Determination method** | SPR analysis (ProteOn XPR36) |
| **Determination antigen** | TSH, Scripps (Cat T0114, Lot 2414402) |

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**Cross-reactivities**

hCG < 0.05 % (Boehringer, Cat 253065, Lot 10774821-25)
LH 1.0 % (Scripps Laboratories, Cat L0814, Lot 125711)
FSH 1.0 % (Boehringer, Cat 252999, Lot 1483403)

**Epitope**

Group 1

**Pair recommendations**

| | | DETECTION | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5401 | 5404 | 5405 | 5407 | 5408 | 5409 |
| CAPTURE | 5401 | - | - | + | + | - | + |
| | 5404 | - | - | + | + | - | + |
| | 5405 | - | - | - | - | + | + |
| | 5407 | - | - | - | - | + | + |
| | 5408 | - | - | + | + | - | + |
| | 5409 | - | - | + | + | - | - |

Following pairs are especially recommended for the below mentioned assays:
CLIA: 5405 (capture) – 5409 (detection), 5407 – 5409 and 5409 – 5407
LF: 5405 (membrane) – 5409 (particles), 5407 – 5409, 5408 – 5405, 5408 – 5407, 5408 – 5409, 5409 – 5407

Please note that pair recommendations are based on results obtained by our laboratory. Equally good results may be obtained using other pairs and therefore these recommendations are only indicative.

**Platforms tested**

FIA, LF, CLIA

**Antigens tested**

Native TSH antigen Lee Biosolutions 996-50 and 996-51.

**Product stability**

| TEMPERATURE, TIME | RESULT |
|---|---|
| -70 °C, 21 days | Not Determined (N/D) |
| -20 °C, 21 days | N/D |
| +4 °C, 21 days | N/D |
| +35 °C, 7 days | N/D |
| +35 °C, 21 days | N/D |
| +45 °C, 3 days | N/D |
| +45 °C, 7 days | N/D |

Stability testing is performed in the product buffer to see whether different temperatures affect the antigen binding, charge or composition of the antibody. Please note that the shelf life given on the first page is based on real time stability testing at 2–8 °C in the product buffer.

**Miscellaneous**

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## References

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