PRODUCT SPECIFICATIONS

Name
Anti-h TSH 5401 SP-1

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 code
100023

Product buffer solution
0.9 % NaCl, 0.095 % NaN₃ as a preservative

Shelf life and storage
12 months from manufacturing at 2–8 °C

Analyte description
Thyroid-stimulating hormone (also known as TSH or thyrotropin) is a peptide hormone synthesized and secreted by thyrotrone 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
1.0 mg/ml (+/- 10 %)

Immunoreactivity
80–120 % compared to the reference sample in an FIA test

IEF Profile
6.6 – 7.7

Purity
≥ 95 %

PARAMETERS DETERMINED DURING PRODUCT DEVELOPMENT

Subclass
IgG₁

Association rate constant
3.6 x 10⁵ 1/Ms

Dissociation rate constant
7.0 x 10⁻⁵ 1/s

Affinity constant
Kₐ = 5.1 x 10⁹ 1/M; Kᵯ = 2.0 x 10⁻¹⁰ M (= 0.20 nM)

Determination method
SPR analysis (ProteOn XPR36)

Determination antigen
TSH, Scripps (Cat T0114, Lot 2414402)
Cross-reactivities

- hCG 0.1 % (Boehringer, Cat 253065, Lot 10774821-25)
- LH 0.8 % (Scripps Laboratories, Cat L0814, Lot 125711)
- FSH 1.0 % (Boehringer, Cat 252999, Lot 1483403)

Epitope

Group 1

Pair recommendations

<table>
<thead>
<tr>
<th>CAPTURE ANTIBODY</th>
<th>DETECTION ANTIBODY</th>
</tr>
</thead>
<tbody>
<tr>
<td>5401</td>
<td>5403, 5405, 5407, 5409</td>
</tr>
<tr>
<td>5403</td>
<td>5401</td>
</tr>
</tbody>
</table>

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.

Product stability

<table>
<thead>
<tr>
<th>TEMPERATURE, TIME</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>-70 °C, 21 days</td>
<td>Not Determined (N/D)</td>
</tr>
<tr>
<td>-20 °C, 21 days</td>
<td>N/D</td>
</tr>
<tr>
<td>+4 °C, 21 days</td>
<td>N/D</td>
</tr>
<tr>
<td>+25 °C, 21 days</td>
<td>N/D</td>
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<tr>
<td>+35 °C, 7 days</td>
<td>N/D</td>
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<tr>
<td>+35 °C, 21 days</td>
<td>N/D</td>
</tr>
<tr>
<td>+45 °C, 3 days</td>
<td>N/D</td>
</tr>
<tr>
<td>+45 °C, 7 days</td>
<td>N/D</td>
</tr>
</tbody>
</table>

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