Medix Biochemica

MedixMAB™ ANTIBODIES

Date: 2020-10-09

PRODUCT SPECIFICATIONS

Name	Anti-h TSH 5404 SP-5
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	100026
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
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 %

PARAMETERS DETERMINED DURING PRODUCT DEVELOPMENT

Subclass	IgG_1
Association rate constant	8.5×10^5 1/Ms
Dissociation rate constant	3.9×10^{-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 (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	-	-	+	+	-	-

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.

Antibodies have been tested in FIA, CLIA, and LF applications.

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

Antibody recognizes native TSH antigen, Lee Biosolutions 996-50 and 996-51.

References

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