

## PRODUCT SPECIFICATIONS

Date: 2015-02-05

<b>PRODUCT NAME</b>	: Anti-h TSH 5409 Fab
<b>PRODUCT SPECIFICITY</b>	: Antibody recognizes human Thyrotropin
<b>PRODUCT CODE</b>	: 600023
<b>ANALYTE DESCRIPTION</b>	: 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.
<b>PRODUCT BUFFER</b>	: 50 mM Na-citrate, pH 6.0; 0.9 % NaCl; 0.095 % NaN <sub>3</sub> as preservative
<b>STORAGE</b>	: Store at 2-8 °C

### PARAMETERS TESTED FROM EACH LOT

<b>LOT NUMBER</b>	:
<b>MANUFACTURED</b>	:
<b>PRODUCT APPEARANCE</b>	: Clear liquid
<b>PRODUCT CONCENTRATION</b>	: mg/ml (+/- 10 %)
<b>PRODUCT ACTIVITY</b>	: 80-120 % compared to reference in an IFMA test
<b>PURITY</b>	: ≥ 95 %

### PROPERTIES OF THE CORRESPONDING MedixMAB MONOCLONAL ANTIBODY

<b>ASSOCIATION CONSTANT</b>	: 2.1 x 10 <sup>6</sup>						
<b>DISSOCIATION CONSTANT</b>	: 1.0 x 10 <sup>-4</sup>						
<b>AFFINITY CONSTANT</b>	: K <sub>A</sub> = 2.1 x 10 <sup>10</sup> 1/M; K <sub>D</sub> = 4.8 x 10 <sup>-11</sup> M (0.05 nM)						
<b>CROSS-REACTIVITIES</b>	: TSH $\alpha$ , TSH $\beta$ , hCG, LH, FSH                      No cross-reactivity						
<b>EPITOPE</b>	: n/a						
<b>PAIR RECOMMENDATIONS</b>	: <table border="1" data-bbox="590 1612 1147 1702"> <thead> <tr> <th>SOLID</th> <th>LABEL</th> </tr> </thead> <tbody> <tr> <td>5405, 5407</td> <td>5409</td> </tr> <tr> <td>5409</td> <td>5405, 5407</td> </tr> </tbody> </table>	SOLID	LABEL	5405, 5407	5409	5409	5405, 5407
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Please note that pair recommendations are based on results obtained in our laboratory. Equally good results may be obtained using other pairs and therefore these recommendations should be taken only as a directive.

<b>REFERENCES</b>	: Brockmann, E.-C., Petterson, K., and Vehniäinen, M., (2004) Improved TSH immunoassay kinetics by using recombinant scFv antibody fragment. Poster. Univ. Turku. Brockmann et al. compared recombinant 5404 scFv and Fab-fragments to native 5404 using 5409 as a label and their findings showed that the assay sensitivity could be improved with the use of scFv fragment. They concluded that the markedly smaller size of the recombinant fragments improves the binding capacity thus improving also the analytical sensitivity.
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