

## PRODUCT SPECIFICATIONS

Date: 2011-10-04

<b>PRODUCT NAME</b>	: Anti-h CRP 6402 SPTN-5
<b>PRODUCT SPECIFICITY</b>	: Human C-reactive protein (CRP), binding is not Ca-dependent
<b>PRODUCT CODE</b>	: 100145
<b>PRODUCT BUFFER</b>	: 50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.1 % NaN <sub>3</sub> as a preservative
<b>SHELF LIFE AND STORAGE</b>	: 24 months at 2-8 °C
<b>ANALYTE DESCRIPTION</b>	: CRP is a member of the class of acute-phase reactants, as its levels rise dramatically during inflammatory processes occurring in the body. CRP rises up to 50,000-fold in acute inflammation, such as infection. It rises above normal limits within 6 hours, and peaks at 48 hours. Its half-life is constant, and therefore its level is mainly determined by the rate of production (and hence the severity of the precipitating cause). CRP is used mainly as a marker of inflammation. Measuring and charting CRP values can prove useful in determining disease progress or the effectiveness of treatments.

### PARAMETERS TESTED FROM EACH LOT

<b>PRODUCT APPEARANCE</b>	: Clear liquid
<b>PRODUCT CONCENTRATION</b>	: 5.0 mg/ml (+/- 10 %)
<b>PRODUCT ACTIVITY</b>	: 80 – 120 % compared to reference in an IFMA-test
<b>IEF-RANGE</b>	: 6.6 – 7.9
<b>PURITY</b>	: ≥ 95 %

### PARAMETERS DETERMINED ONLY DURING PRODUCT R&D PHASE

<b>CLASS AND SUBCLASS</b>	: IgG <sub>1</sub>
<b>ASSOCIATION CONSTANT</b>	: $7.3 \times 10^5$ 1/Ms
<b>DISSOCIATION CONSTANT</b>	: $1.2 \times 10^{-4}$ 1/s
<b>AFFINITY CONSTANT</b>	: KA = $6.2 \times 10^9$ 1/M; KD = $1.6 \times 10^{-10}$ M (=0.16 nM)
<b>DETERMINATION METHOD</b>	: SPR analysis (ProteOn XPR36)
<b>ANTIGEN</b>	: Scripps CO124, #2200701
<b>CROSS-REACTIVITIES</b>	: No cross-reactivity against serum Amyloid-P complex, others not tested

**EPITOPE** : N/D

**EPITOPE GROUP** : -

Two antibodies binding to the same, or closely located epitopes, belong to the same group and hence cannot be used as a pair in a sandwich assay. Epitope group numbering does not give any detailed information where the epitope is located.

<b>PAIR RECOMMENDATIONS</b>	<b>SOLID</b>	<b>LABEL</b>
	6402	6402, 6403, 6405, 6407
	6403, 6405, 6407	6402

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>PRODUCT STABILITY</b>	<b>TEMPERATURE, DAYS</b>	<b>RESULT</b>
Please note that the shelf life given on page one is based on real time stability testing at +2-8 °C in the product buffer.	-70 °C, 21 days	OK
	-20 °C, 21 days	OK
	+4 °C, 21 days	OK
	+25 °C, 21 days	OK
	+35 °C, 21 days	OK
	+45 °C, 7 days	OK

Stability testing is performed in the product buffer to see whether different temperatures affect the antigen binding, charge or composition of the antibody. The maximum duration of the test is 21 days, except for the +45 °C only 7 days.

<b>pH, 14 DAYS, +4 °C</b>	<b>RESULT</b>
5.0	OK
6.0	OK
7.0	OK
8.0	N/D

Stability testing is performed to see whether pH affects the antigen binding, charge or composition of the antibody during 14 days at +4 °C.

**MISCELLANEOUS** : -

**REFERENCES** : Käpyaho, K., Welin, M.-G., Tanner, P., Kärkkäinen, T., and Weber, T., (1989) Rapid determination of C-reactive protein by enzyme immunoassay using two monoclonal antibodies. *Scand. J. Clin. Lab. Invest.*, 49:389-393

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