

## PRODUCT SPECIFICATIONS

<b>Name</b>	Anti-h PCT 4003 SPTN-5
<b>Specificity</b>	Antibody recognizes human procalcitonin (PCT)
<b>Description</b>	Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components
<b>Product code</b>	100562
<b>Product buffer solution</b>	50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.095 % NaN <sub>3</sub> as a preservative
<b>Shelf life and storage</b>	Unspecified, storage at 2-8 °C
<b>Analyte description</b>	Procalcitonin (PCT) is a precursor protein of the hormone calcitonin, produced by the thyroid gland. It is a 116 amino acid protein that is cleaved intracellularly to form three peptides: N-terminal procalcitonin, calcitonin, and katalcalcin. In healthy individuals, only the calcitonin polypeptide is secreted into the bloodstream, and PCT serum levels are very low. However, in patients with systemic infections, and especially sepsis, serum PCT levels rise rapidly.

## PARAMETERS TESTED ON EACH LOT

<b>Product appearance</b>	Liquid, may turn slightly opaque during storage
<b>Product concentration</b>	5.0 mg/ml (+/- 10 %)
<b>Immunoreactivity</b>	80-120 % compared to the reference sample in an FIA test
<b>IEF Profile</b>	6.4 - 6.7
<b>Purity</b>	≥ 95 %

## PARAMETERS DETERMINED DURING PRODUCT DEVELOPMENT

<b>Subclass</b>	IgG <sub>1</sub>
<b>Association rate constant</b>	$4.8 \times 10^4$ 1/Ms
<b>Dissociation rate constant</b>	$2.2 \times 10^{-4}$ 1/s
<b>Affinity constant</b>	$K_A = 2.2 \times 10^8$ 1/M; $K_D = 4.6 \times 10^{-9}$ M (=4.6 nM)
<b>Determination method</b>	SPR analysis (ProteOn XPR36)
<b>Determination antigen</b>	PCT, Medix Biochemica (Cat 610080)

**Cross-reactivities**

Does not cross-react with canine procalcitonin.

**Epitope**

Anti-h PCT 4003 antibody recognizes the katacalcin domain of procalcitonin, i.e. the region Asp(96) – Asn(116), as calculated from the peptide sequence of the mature PCT protein, without the signal sequence.

**Pair recommendations**

		DETECTION					
		4003	4004	4005	4006	4008	4051
CAPTURE	4003	-	+	+	-	-	+
	4004	+	-	-	+	+	-
	4005	+	-	-	+	+	-
	4006	-	+	+	-	-	+
	4008	-	+	+	-	-	+
	4051	+	-	-	+	+	-

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**

**TEMPERATURE, TIME**

-70 °C, 21 days  
 -20 °C, 21 days  
 +4 °C, 21 days  
 +35 °C, 7 days  
 +35 °C, 21 days  
 +45 °C, 3 days  
 +45 °C, 7 days

**RESULT**

OK  
 OK  
 OK  
 OK  
 OK  
 OK  
 OK

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**

Reacts with recombinant PCT antigen, Medix Biochemica, 610080.

**References**

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