

## Anti-h PCT 4003 SPTN-5

### Product overview

<b>Catalog number</b>	100562
<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 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>Subclass</b>	IgG <sub>1</sub>
<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 katacalcin. 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 %

### Kinetic parameters

<b>Association rate constant</b>	4.8 x 10 <sup>4</sup> 1/Ms	1.4 x 10 <sup>5</sup> 1/Ms
<b>Dissociation rate constant</b>	2.2 x 10 <sup>-4</sup> 1/s	1.7 x 10 <sup>-4</sup> 1/s
<b>Affinity constant</b>	K <sub>A</sub> = 2.2 x 10 <sup>8</sup> 1/M K <sub>D</sub> = 4.6 x 10 <sup>-9</sup> M (= 4.6 nM)	K <sub>A</sub> = 8.0 x 10 <sup>8</sup> 1/M K <sub>D</sub> = 1.5 x 10 <sup>-9</sup> M (= 1.5 nM)
<b>Determination method</b>	SPR analysis (ProteOn XPR36)	BLI (Octet RED96e)
<b>Determination antigen</b>	PCT, Medix Biochemica (Cat 610080)	PCT, Medix Biochemica (Cat 610080)



**Legal disclaimer**

**Cross-reactivities** Does not recognize 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	+	-	-	+	+	-

Following pairs are especially recommended for the below mentioned assays:

LF: 4006 (membrane) – 4004 (particles) and 4006 (membrane) – 4051 (particles)

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.

**Platforms tested** FIA, LF, CLIA

**Antigens tested** Recombinant PCT antigen, Medix Biochemica 610080.

TEMPERATURE, TIME	RESULT
-70 °C, 21 days	OK
-20 °C, 21 days	OK
+4 °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. 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** -

**References** -



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