

Anti-h PCT 4004 SPTN-5

Product overview

Catalog number	100563
Specificity	Antibody recognizes human procalcitonin (PCT)
Description	Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components.
Product buffer solution	50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.095 % NaN ₃ as a preservative
Shelf life and storage	36 months from manufacturing at 2–8 °C
Subclass	IgG ₁
Analyte description	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

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	6.2–6.9
Purity	≥ 95 %

Kinetic parameters

Association rate constant	2.5 x 10 ⁴ 1/Ms	5.1 x 10 ⁵ 1/Ms
Dissociation rate constant	Does not dissociate under conditions used	Does not dissociate under conditions used
Affinity constant	Not Applicable (N/A)	N/A
Determination method	SPR analysis (ProteOn XPR36)	BLI (Octet RED96e)
Determination antigen	PCT, Medix Biochemica (Cat 610080)	PCT, Medix Biochemica (Cat 610080)



Cross-reactivities

Not Determined (N/D)

Epitope

Anti-h PCT 4004 antibody recognizes the calcitonin domain of procalcitonin, i.e. the region Met(67) - Arg(95), as calculated from the peptide sequence of the mature PCT protein, without the signal sequence. The most critical amino acids for binding are Phe-His-Thr-Phe (78-81).

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.

Product stability

TEMPERATURE, TIME	RESULT
-70 °C, 21 days	OK
-20 °C, 21 days	OK
+4 °C, 21 days	OK
+35 °C, 7 days	Charge alterations
+35 °C, 21 days	Charge alterations
+45 °C, 3 days	Charge alterations
+45 °C, 7 days	Charge alterations

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

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References

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