Medix Biochemica

Product specification
ANTIBODY
2022-11-02

Anti-h C-peptide 9101 SPTN-5

Product overview

Catalog number	100113
Specificity	Antibody recognizes human C-peptide
Description	Monoclonal mouse antibody, cultured *in vitro* 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	24 months from manufacturing at 2–8 °C
Subclass	IgG_1
Analyte description	C-peptide is produced when proinsulin is split into insulin and C-peptide. They split before proinsulin is released from endocytic vesicles within the pancreas-one C-peptide for each insulin molecule. When a patient has newly diagnosed type 1 or type 2 diabetes, C-peptide can be used to help determine how much insulin the patient's pancreas is still producing. C-peptide measurements also can be used in conjunction with insulin and glucose levels to help diagnose the cause of documented hypoglycemia and to monitor its treatment.

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	6.7–7.8
Purity	≥ 95 %

Kinetic parameters

Association rate constant	Not Determined (N/D)
Dissociation rate constant	N/D
Affinity constant	$K_A = 7 \times 10^9$ 1/M
Determination method	Radioimmunoassay (RIA)
Determination antigen	C-Peptide, Proinsulin [33-63], human C-Peptide, American Peptide Company (Cat 20-1-11, Lot 010116A1)

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Cross-reactivities

Human proinsulin (recombinant) 0.93 % (Sigma, Cat P4672, Lot 5740974)

Epitope

The binding site is located within the range 12-30, with the most critical amino acids for binding being LEGSL (26-30). There was no binding signal detected with peptides without the amino acid L(26).

Pair recommendations

		DETECTION	
		9101	9103
CAPTURE	9101	-	+
	9103	-	-

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

Antigens tested

N/D

Product stability

TEMPERATURE, TIME	RESULT
-70 °C, 21 days	N/D
-20 °C, 21 days	OK
+4 °C, 21 days	OK
+30 °C, 21 days	OK
+35 °C, 21 days	OK
+45 °C, 3 days	OK
+45 °C, 7 days	Reduced immunoreactivity

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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