Medix Biochemica

MedixMAB™ ANTIBODIES

2021-03-19

Product specifications

Name	Anti-h CEA 5911 SP-1
Specificity	Antibody recognizes human carcinoembryonic antigen
Description	Monoclonal mouse antibody, cultured *in vitro* under conditions free from animal-derived components
Product code	100048
Product buffer solution	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	Carcinoembryonic antigen (CEA) is a glycoprotein involved in cell adhesion. It is normally produced during fetal development, but the production of CEA stops before birth. Therefore, it is not usually present in the blood of healthy adults, but elevated levels have been found in individuals with carcinomas. CEA measurement is mainly used as a tumor marker to identify recurrences after surgical resection. CEA levels may also be raised in some non-neoplastic conditions like ulcerative colitis, pancreatitis, and cirrhosis.

Parameters tested on each lot

Product appearance	Liquid, may turn slightly opaque during storage
Product concentration	1.0 mg/ml (+/- 10 %)
Immunoreactivity	80–120 % compared to the reference sample in an FIA test
IEF Profile	6.5–7.5
Purity	≥ 95 %

Kinetic parameters

Association rate constant	Not Determined (N/D)
Dissociation rate constant	N/D
Affinity constant	$K_A = 1.5 \times 10^{10}$ 1/M
Determination method	Radioimmunoassay (RIA)
Determination antigen	CEA, BIOSCAN (Cat 100, Lot 118-1T)

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Cross-reactivities

Recognizes human NCA-2 (non-specific cross-reacting antigen-2).

Epitope

Epitope group E as described in Bhayana et al. (1989)

Pair recommendations

		DETECTION				
		5905	5909	5910	5911	5912
CAPTURE	5905	-	-	-	-	-
	5909	+	-	+	-	-
	5910	-	+	-	-	+
	5911	-	-	-	-	-
	5912	-	-	+	-	-

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, CLIA

Antigens tested

Antibody recognizes native CEA antigen, Lee Biosolutions 151-09 and 151-10.

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, 7 days	OK
+35 °C, 21 days	Reduced homogeneity
+45 °C, 3 days	OK
+45 °C, 7 days	Reduced homogeneity

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

In Bhayana et al. (1989) authors made an epitope mapping for 11 monoclonal antibodies from Medix Biochemica and they found that the antibodies bound to 5 different epitope groups (A to F) and 5911 was found to bind to epitope group E.

References

Bhayana, V. and Diamandis, E.P. (1989) A double monoclonal time-resolved immunofluorometric assay of carcinoembryonic antigen in serum.
Clin. Biochem., 22:433-438

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