

Anti-Fentanyl 13101 SPTN-5

Product overview

Catalog number	100998
Specificity	Antibody recognizes fentanyl
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	Unspecified, storage at 2–8 °C
Subclass	IgG ₁
Analyte description	Fentanyl is a synthetic opioid with 50–100 times the potency of morphine. It is used to treat severe pain. Fentanyl may be illicitly produced and mixed with other illegal drugs increasing the abuse and overdose risks.

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	6.6–7.1
Purity	≥ 95 %

Kinetic parameters

Association rate constant	2.2×10^6 1/Ms
Dissociation rate constant	1.2×10^{-5} 1/s
Affinity constant	$K_A = 1.8 \times 10^{11}$ 1/M; $K_D = 5.3 \times 10^{-12}$ M (= 0.005 nM)
Determination method	BLI (Octet RED96e)
Determination antigen	Fentanyl-BSA Antigen, Medix Biochemica, 170040



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Cross-reactivities	Recognizes acetyl fentanyl Does not recognize norfentanyl Risperidone $\leq 1\%$ 9-hydroxyrisperidone $\leq 1\%$												
Epitope	N/D												
Pair recommendations	Fentanyl-BSA Antigen, Medix Biochemica, 170040												
Platforms tested	FIA												
Antigens tested	Please see pair recommendation above.												
Product stability	<table><thead><tr><th>TEMPERATURE, TIME</th><th>RESULT</th></tr></thead><tbody><tr><td>-70 °C, 21 days</td><td>OK</td></tr><tr><td>-20 °C, 21 days</td><td>OK</td></tr><tr><td>+4 °C, 21 days</td><td>OK</td></tr><tr><td>+35 °C, 21 days</td><td>OK</td></tr><tr><td>+45 °C, 7 days</td><td>OK</td></tr></tbody></table> <p>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.</p>	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
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