

## Anti-Xylazine R14501 SPTN-5

### Product overview

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<b>Catalog number</b>	140080
<b>Specificity</b>	Antibody recognizes Xylazine and metabolite 4-hydroxy Xylazine
<b>Description</b>	Recombinant 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>	Mouse IgG <sub>1</sub>
<b>Analyte description</b>	Xylazine is a veterinary tranquilizer and an alpha-2 adrenergic receptor agonist that is increasingly misused in combination with synthetic opioids, especially in the United States, where it has been associated with numerous overdose deaths. Detection of xylazine is critical because its effects cannot be reversed with naloxone, the standard treatment for opioid overdoses.

### Parameters tested on each lot

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<b>Product appearance</b>	Liquid, may turn slightly opaque during storage
<b>Product concentration</b>	5.0 mg/ml (+/-10 %) (A280 nm, 1 mg/ml, 1 cm = 1.6)
<b>Immunoreactivity</b>	80–120 % compared to the reference sample in an FIA test
<b>IEF Profile</b>	6.4–7.2
<b>Purity</b>	≥ 95 %

### Kinetic parameters

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<b>Association rate constant</b>	$1.9 \times 10^6$ 1/Ms
<b>Dissociation rate constant</b>	$1.9 \times 10^{-4}$ 1/s
<b>Affinity constant</b>	$K_A = 1.0 \times 10^{10}$ 1/M; $K_D = 2.6 \times 10^{-10}$ M (= 0.26 nM)
<b>Determination method</b>	BLI (Octet RED96e)
<b>Determination antigen</b>	Xylazine-BSA, Medix Biochemica (Cat 170106)



#### Legal disclaimer

**Cross-reactivities** Recognizes Xylazine (100 %) and 4-hydroxy Xylazine (139 %). Does not recognize 3,4-methylenedioxymethamphetamine (MDMA), fentanyl, norfentanyl, methamphetamine, amphetamine, morphine, 6-monoacetylmorphine (6-MAM), tricyclic antidepressant (TCA, Imipramine), medetomidine and lidocaine.  
Cross-reactivity to clonidine  $\leq 0.1$  %

**Epitope** N/D

**Pair recommendations** Xylazine-BSA Antigen, Medix Biochemica (Cat 170106)

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

**Antigens tested** Please see pair recommendations above

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** -

