

BTNX Rapid Response™ Orphine Test Strip 2000 ng/mL

Introduction

Orphines are a class of synthetic opioids originally developed in Belgium in the 1960s for their potent anaesthetic properties and later withdrawn from clinical use due to their overdose risk. It is now increasingly found in the illicit drug supply, with some analogues having comparable to substantially more potency levels than fentanyl. Brorphine was the first member reported in the illicit drug market in 2019, and additional analogues, including cychlorphine and spirochlorphine, have emerged more recently. Following China's class-wide scheduling of nitazene compounds in July 2025, orphine analogues have proliferated in the illicit drug supply a pattern consistent with the earlier shift from fentanyl to nitazenes.

In the United States and Canada, orphines have been detected in samples sold as other opioids, such as hydromorphone and oxycodone, that contained no other active drug. As with other potent synthetic opioids, even small amounts of orphines can cause respiratory depression, and unknowingly consuming orphine-containing substances increases the risk of accidental overdose. Early evidence suggests that existing fentanyl and nitazene test strips do not reliably detect orphines, creating a gap in point-of-use drug checking that this test strip is designed to address.

The **Rapid Response™ Orphine Test Strip** from BTNX is specifically designed for the swift screening of Orphines and Orphine analogues in liquid/powder samples. The test incorporates an antibody that selectively identifies orphine and orphine analogues from other substances. Like other harm reduction test strips, it operates on a competitive binding principle and generates a colorimetric result. If any of the listed orphine substances are present in the sample at a concentration surpassing the designated cut-off, a singular-colored line will appear in the test.

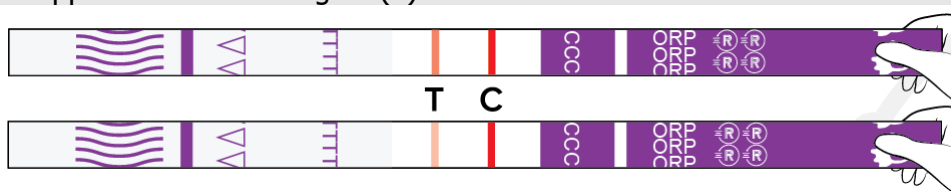
Positive – Orphine Detected

Only one colored line appears in the control region (C). No apparent colored line appears in the test region (T).



Negative – Orphine Could Not be Detected

Two colored lines appear on the membrane. One line appears in the control region (C) and another line appears in the test region (T).





Test Performance

Analytical Sensitivity

The following compounds were individually spiked into water to evaluate the detection capability of the Rapid Response™ Orphine Test Strip. The cut-off listed in the table represents the concentration at which a substance will begin to show a mix of positive and negative results.

Compounds	Cut Off
N-Propionitrile Chlorphine	2000 ng/mL

Analytical Specificity

The following compounds were spiked into water at the concentrations shown to examine possible cross-reactivity with the orphine test strip. None produced a false-positive result.

Compound	Concentration	Result
Xylazine	10 mg/mL	Negative
Diphenhydramine	10 mg/mL	Negative
Caffeine	5 mg/mL	Negative
Lidocaine	10 mg/mL	Negative
Phenacetin	0.1 mg/mL	Negative
Levamisole	10 mg/mL	Negative
Acetaminophen	10 mg/mL	Negative
Dimethylsulphone	10 mg/mL	Negative