Amphetamine (AMP)

Amphetamine is a sympathomimetic amine with moderate central and peripheral stimulant activity. Amphetamine is available in oral and smoking formulations. After oral administration, amphetamine is primarily absorbed with a Cmax of 20-100 ng/mL at 5-10 minutes following use. Amphetamine can be detected in oral fluids for up to 72 hours after use. The amphetamine assay contained within the Multi Drug Rapid Test Midstream yields a positive result when the amphetamine concentration in oral fluids exceeds 50 ng/mL. Methamphetamine (MET)

Methamphetamine is a potent stimulant chemically related to amphetamine but with greater CNS stimulation properties. Methamphetamine is a drug that is often self-administered by nasal inhalation, oral ingestion, or rectal contact or second contact. Depending on the route of administration, methamphetamine can be detected in oral fluid as early as 5-10 minutes following use. Methamphetamine can be detected in oral fluids for up to 72 hours after use.

The methamphetamine assay contained within the Multi Drug Rapid Test Midstream yields a positive result when the methamphetamine concentration in oral fluid exceeds 50 ng/mL.

Cocaine (COC)

Cocaine is a potent central nervous system (CNS) stimulant and a local anesthetic derived from the coca plant (erythroxylum coca). The drug is often self-administered by nasal inhalation, intranasal injection, and free-base smoking. Depending on the route of administration, cocaine and cocaine metabolites can be detected in oral fluid as early as 5-10 minutes following use. Cocaine can be detected in oral fluids for up to 72 hours after use.

The cocaine assay contained within the Multi Drug Rapid Test Midstream for cocaine and opiates yields a positive result when the cocaine metabolite in oral fluid exceeds 20 ng/mL.

Opiates (OPI)

Opium is the class of opiates to refer to any drug that is derived from the opium poppy, including naturally occurring compounds such as morphine and codeine and semi-synthetic drugs such as heroin. Opiates are used to control pain by depressing the central nervous system. The drugs demonstrate addictive properties when used for sustained periods of time; symptoms of withdrawal may include sweating, shaking, nausea and irritability. Opiates can be taken orally or by injection routes including intravenous, intramuscular, and subcutaneous. Illegal users may also take the intravenously or by nasal inhalation. Using an immunoassay cutoff level of 40 ng/mL, cocaine can be detected in the oral fluid within 1 hour following a single oral dose and can remain detectable for 7-21 hours after the dose.

Heroin metabolite 6-monoacetylmorphine (6a-MAM) is in excess and unmetabolized, and is also the major metabolic product of cocaine and heroin. The opiate assay contained within the Multi Drug Rapid Test Midstream for cocaine and opiates yields a positive result when the opiate metabolite in oral fluid exceeds 20 ng/mL.

Marijuana (THC)

11-nor-9-tetrahydrocannabinol-9-carboxylic acid (11-nor-THC-COOH), the metabolite of THC (11-\text{tetrahydrocannabinol}), is detectable in saliva shortly after use. The detection of the drug is thought to be due to the levels of THC found in the oral fluid due to the metabolic administration and the subsequent sequestration of the drug in the buccal cavity. Historical studies have shown a window of detection for THC in saliva of up to 14 hours after drug use. The THC assay contained within the Multi Drug Rapid Test Midstream for THC yields a positive result when the 11-nor-THC-COOH concentration in oral fluid exceeds 4 ng/mL.
3. A negative result may not necessarily indicate a drug-free specimen. Drug may be present in the specimen below the cutoff level of the assay.

**PERFORMANCE CHARACTERISTICS**

**Analytical Sensitivity**

A Phosphate-buffered saline (PBS) pool was spiked with drugs to target concentrations of ± 50% cut-off, ± 25% cut-off and ± 100% cut-off and tested with the Multi-Drug Rapid Test Midstream. The results are summarized below.

<table>
<thead>
<tr>
<th>Drug conc. (Cut-off range)</th>
<th>n</th>
<th>AMP</th>
<th>MET</th>
<th>THC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% Cut-off</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-50% Cut-off</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>-25% Cut-off</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>+25% Cut-off</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>+50% Cut-off</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>30</td>
</tr>
</tbody>
</table>

**Performance Characteristics**

**COCAIN (COC)**

- Benzylecgonine: 20
- Cocaine: 25
- Cocaoethine: 1
- Egonine: 1,500
- Egonine methyl ester: 12,500

**DIAPES (API)***

- Morphine: 30
- Codeine: 25
- Ethylmorphine: 25
- Hydromorphone: 100
- Hydrocodone: 10
- Lorazepam: 400
- Oxycodone: 25,000
- Methadone: 30
- Buprenorphine: 10
- Propoxyphene: 10

**BIBLIOGRAPHY**