### Drugs of Abuse On-Site Screens

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<td><strong>Electronic Data Storage for Drugs of Abuse</strong></td>
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For further information visit our website: [www.apc.co.nz/drug&alcoholtesting](http://www.apc.co.nz/drug&alcoholtesting)
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Check out our website for datasheets and costs on drug screening products: www.apc.co.nz
Rapid Drug Screen® from American Bio-Medica:
A multi-drug test with a specimen collection cup, ID label, temperature strip, slotted lid, plus solid lid & tamper evident seal
- Up to 10 drugs per panel
- Temperature strip on collection cup
- Clear collection cup - allows for visual integrity check
- Tamper-proof - Closed specimen cup – insert device through slot
- Results ready in 3-5 minutes
- No timing required: control line indicator
- Each test has built-in procedural control
- Results stable for one hour
- >99% correlation to GC/MS at 95% confidence level
- Detects drugs at SAMHSA cut-offs
- Alternate pipette procedure : two drops per drug for low volume samples

Rapid Reader™ is a peripheral device that connects to a PC and is powered via a USB cable.

The Rapid Reader will scan and interpret the test results for Rapid Drug Screen®, Rapid ONE®, Rapid TEC®, and Rapid-TOX®

A customised report is generated that can be stored, printed or transmitted electronically. The data can be exported to an Excel® file for complete data management of the test results.

- Connects to any Windows PC with USB cable
- Provides rapid results
- RR™ software verifies each tests validity & determines + or -
- No interpretation errors
**Rapid Drug Screen® InCup™**

From American Bio Medica: An integrated collection and testing device for up to 10 drugs of abuse.
- Temperature strip on collection cup
- Clear collection cup—allows for visual integrity check
- Customized configurations available
- Incorporates collection and testing
- Collect sample—read results 3-5 minutes
- No timing required—control line indicator
- Closed cup specimen
- Ship to lab in same container for confirmation
- Each test has built in procedural control
- Results stable for one hour
- >99% correlation to GC/MS at 95% confidence level
- SAMHSA cut-offs
- Alternate low volume procedure: pipette 2 drops per drug
- **OPTIONAL XTRA** - Available now with adulterant strip

---

**Rapid One®**

is a single drug test panel for the detection of 13 different drugs of abuse in urine. Simply dip the RAPID ONE into the sample for about 5-7 seconds and read test results once the control line forms, typically in 3—5 minutes. Pipette method also available.

**Rapid-Tec®**

Rapid-Tec® are convenient, easy to use and cost effective **multiple** screening devices for Amphetamine, Cocaine, Methamphetamine, Opiates, PCP & THC. Available in 4 configurations. For on-site urine based screening—a single dipstick containing one individual drug testing strip for multiple drugs of abuse. Cost effective with results available in 5—7 minutes.
Collection cups
for specimen collection are available in packs of 10 for testing where cup is not included in package:-
Rapid ONE®, Rapid-TEC®, Rapid TOX™

- 100ml graduated cup
- Temperature strip for test validity
- Clear cup allows for visual integrity check

$1 each +GST (minimum of 10)
Ensure the integrity of your drug testing program with Intect 7 Adulteration Strips.

Intended for the visual qualitative determination of adulterants in urine specimens prior to Drugs of Abuse testing.

Dilution
025 strips per vial—Tests for
Creatinine
Specific Gravity

Adulteration
pH
Glutaraldehyde
Bleach
Nitrites
Pyridinium Chlorochromate

Easy to use, dip test strip into urine specimen for three seconds. Draw strip out of specimen along rim of test cup to remove excess urine. Compare colour changes to guide on test vial

OralStat® is a revolutionary point of collection test for drugs of abuse in oral fluids. OralStat combines the convenience of oral fluid collection with the sensitivity, accuracy and precision of a laboratory based test, providing results in about 16 minutes

NON INTRUSIVE / INDICATES RECENT USE

- Six drugs per test – multiple configurations
- All collections can be observed
- No restroom needed
- Specimen collection takes just two minutes
- Volume indicator: ensures correct specimen volume
- No shy bladder issues
- No specimen dilution or tampering issues
- Results ready in about 16 minutes
- Rapid results allow for quick decisions All collections can be observed
- Tests available AMP BZO COC MTD METH OPI PCP THC
A Quantitative Test for the Determination of Equivalent Blood Alcohol Content (BAC) using a Saliva Sample. Approved by the Federal Department of Transportation (DOT) for Commercial Alcohol Testing Programs. Simple as Reading a Thermometer.

- Non Invasive, Quantitative Results in 2-4 Minutes
- Interpretation like Reading a Thermometer
- Long Shelf Life of 1 Year Plus
- Individually Sealed in Foil Envelope with Cotton Swabs
- Built-in Quality Control and Calibration
- U.S. DOT Approved for Testing and Evidence
- High Correlation ($r=0.98$) to Blood Analysis results
- No Special Equipment or Training Required

The RapidSTAT 6 is used for the simultaneous detection of 6 drugs of abuse in oral fluid specimens. Drugs detected are: Amphetamine, Methamphetamine, Benzodiazepines, Cocaine, Opiates & Marijuana. Combining the convenience of oral fluid collection with the sensitivity, accuracy and precision of a laboratory test. The test system consists of an untreated collection swab with a built-in sample adequacy feature, a dropper bottle filled with 1.5mL buffer solution and a test cassette. Simple, non-intrusive and easy to use with results available in 8-10 minutes.

- Indicates Recent Use
- All collections can be observed
- No restroom required
- Non-intrusive
- Specimen collection takes 2 minutes
- No shy bladder issues
- No specimen dilution or tampering
### DRUG LASTING POWER

<table>
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<tr>
<th>DRUGS AND METABOLITES</th>
<th>URINE DETECTION PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALCOHOL, BEER, WINE, LIQUOR</td>
<td>6-12 HOURS</td>
</tr>
<tr>
<td>AMPHETAMINE/METHAMPHETAMINE</td>
<td>2-4 DAYS</td>
</tr>
<tr>
<td>BARBITURATES</td>
<td>3 DAYS</td>
</tr>
<tr>
<td>COCAINE AND METABOLITES</td>
<td>2-3 DAYS</td>
</tr>
<tr>
<td>CODEINE, MORPHINE</td>
<td>2-3 DAYS</td>
</tr>
<tr>
<td>OPIATES</td>
<td>2-3 DAYS</td>
</tr>
<tr>
<td>MARIJUANA (THC)</td>
<td>10-30 DAYS AVERAGE **</td>
</tr>
<tr>
<td>PCP (PHENCYCLIDINE)</td>
<td>3-8 DAYS</td>
</tr>
</tbody>
</table>

** THC/MARIJUANA  This is known to remain in the system the longest of all drugs. In some cases if the user is deemed "chronic" (smoked regularly for years) then marijuana can be present in the system for up to 4+ months.

When a urine is tested for drugs of abuse, specific guidelines have been adopted from Federal Mandates on how the urine will be tested and at what cut-off levels must be exceeded before the sample can be reported as positive.

Positive samples undergo a two test criteria before a sample can be reported as “positive”. The first test is a screening procedure. (I will use marijuana as an example, the screening and confirmation rules apply to all of the compounds).

Marijuana has several similar compounds and to varying degrees react with the first screen procedure to produce a positive result; that is why the cut-off of 50ng/ml is used. The screen must exceed 50ng/ml of total cannabinoids before that specimen will be sent forward through the system to a more specific confirmation process. The confirmation procedure singles out one primary metabolite associated with marijuana use. The metabolite Delta-9-THC carboxyclic acid has a cut-off of 15ng/ml. For a specimen to be reported as positive, the screen must exceed 50ng/ml and the confirmation must exceed 15ng/ml.

These are the Federal Workplace guidelines (USA) and are also the International Standard and are used by all countries. Cut-off levels vary for each individual drug of abuse, but are all set to the International Standard.

A report of a negative does not mean absolute zero, it means that the sample (marijuana) was under the cut-off of 50ng/ml of 15ng/ml.
OVER THE COUNTER & PRESCRIPTION DRUGS WHICH COULD ALTER OR AFFECT THE OUTCOME OF A DRUG TEST

**ALCOHOL**
All liquid medications containing ethyl alcohol (ethanol). Please read the label for the alcohol content. As an example, Vick’s Nyquil is 25% (50 proof) ethyl alcohol, Comtrex is 20% (50 proof) and Listerine is 26.9% (54 proof).

**AMPHETAMINES**
Obetrol, Biphetamine, Desoxyn, Dexedrine, Didrex, Marinol

**COCAINE**
Cocaine HCl topical solution (Roxanne)

**PHENCYCLIDINE**
Not legal by prescription.

**METHAQUALONE**
Not legal by prescription

**OPIATES**
Paregoric, Prepectolin, Donnagel PG, Morphine, Tylenol with Codeine, Empirin with Codeine, APAP with Codeine, Asprin with Codeine, Robituddin AC, Guiatus AC, Novahistine DM, Novahitine Expectorant, Dilaudid (Hydromorphone), M-S Contin and Roxanol (morphine and sulphate), Percodan, Vicodin etc.

**BARBITURATES**
Phemobarbital, Tuinal, Amytel, Nembutal, Seconal, Lotusate, Florinal, Floricet, Eagic, Butisol, Mebaral, Butubarital, Butabital, Phrenillin, Triad etc.

**BENZODIAZEPINES**
Ativa, Azene, Clonopin, Dalmane, Diazepam, Librium, Xanax, Serax, Tranxene, Valium, Verstran, Halcion, Paxipam, Restoril, Centrax.

**METHADONE**
Dolphine, Methadose

**PROPOXYPHENE**
Darvocet, Davron N, Dolene, etc
ALCOHOL—What is It?

The alcohol we consume is called ethyl alcohol. Most alcohols are highly poisonous to humans, but ethyl alcohol can be tolerated by the body in small amounts. It is classified as a sedative-hypnotic drug because it acts to slow down the activities of the central nervous system.

Alcohol is not digested like a food, but approximately 20% passes into the bloodstream through the walls of the small intestine. Only minutes after drinking, the circulation system begins distributing the alcohol to every part of the body. As the alcohol travels around the body via the bloodstream, it starts to slow down the operation of various sorts of cells. This causes the different stages of intoxication and drunkenness - relaxation, laughter, slurred speech, inability to walk straight and dangerous driving.

Alcohol interferes with your brain activity. It slows your reflexes, impairs co-ordination, reduces visual sharpness and cuts down on your normal caution. Alcohol makes it harder to concentrate. You can’t think as clearly or quickly, or act as fast as you normally do. Even more of a problem is that you are unaware this is happening to you. Alcohol short-circuits the warning light in your brain, so you don’t know you’re impaired. You develop a false sense of confidence and well-being. And this is extremely dangerous for anyone who’s driving, holding responsible positions in industry, involving high concentration or the operation of expensive machinery.

SOURCE: “Alcohol Facts and Effects” Booklet published by ALAC.
Breath Alcohol Testing - The Need

There are a number of reasons why monitoring for alcohol impairment needs to happen. Some of these include:

**Costs to Industry**

It is estimated that alcohol impairment in the workplace costs New Zealand $670,000,000 annually in lowered productivity. This *does not* include the cost of workplace accidents and absenteeism.

**Human Costs**

- On average, 1 person per day is killed, and 12 people are injured in alcohol related motor vehicle accidents

- About 50% of road accident victims are impaired by alcohol at the time of the accident

In total, there are about 800 deaths every year due to heavy drinking, and many times that number of injuries.

SOURCE: ALAC
Court Imposed Penalties

<table>
<thead>
<tr>
<th>Offence</th>
<th>Amount of alcohol Blood</th>
<th>Amount of alcohol Breath</th>
<th>Penalty</th>
<th>Loss of licence</th>
</tr>
</thead>
<tbody>
<tr>
<td>You kill or injure someone when driving after drinking too much or taking drugs</td>
<td>more than 80mg per 100ml</td>
<td>more than 400mcg per litre</td>
<td>up to 5 years</td>
<td>and/or up to $20,000</td>
</tr>
<tr>
<td>You drive, or try to drive, after drinking too much or taking drugs and you are aged 20 years or over.</td>
<td>more than 80mg per 100ml</td>
<td>more than 400mcg per litre</td>
<td>First/Second Offence</td>
<td>up to 3 months and/or up to $4500</td>
</tr>
<tr>
<td>You drive, or try to drive, after drinking too much or taking drugs and you are aged under 20 years.</td>
<td>more than 30mg per 100ml</td>
<td>more than 150mcg per litre</td>
<td>Third or More</td>
<td>2 years $6000 1 year or more</td>
</tr>
<tr>
<td>You refuse to give blood when asked by a police officer, doctor or approved person.</td>
<td></td>
<td></td>
<td>First/Second Offence</td>
<td>up to 3 months and/or up to 6 months or more</td>
</tr>
<tr>
<td>You refuse to go with a police officer for an evidential breath test or blood test.</td>
<td></td>
<td></td>
<td>Third or More</td>
<td>2 years $6000 1 year or more</td>
</tr>
<tr>
<td>You are in charge of a vehicle after drinking too much or taking drugs and you do not hand over the keys when asked by a police officer.</td>
<td></td>
<td></td>
<td></td>
<td>up to $4500 as decided by the court</td>
</tr>
</tbody>
</table>
## SAMHSA CUT-OFF LEVELS FOR DRUGS OF ABUSE/urine/immunoassay screens

<table>
<thead>
<tr>
<th>Drug</th>
<th>Cut-off ng/ml</th>
<th>Drug</th>
<th>Cut-off ng/ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>amphetamine</td>
<td>1000</td>
<td>propoxyphene</td>
<td>300</td>
</tr>
<tr>
<td>barbiturates</td>
<td>300</td>
<td>tricyclic antidepressants</td>
<td>1000</td>
</tr>
<tr>
<td>benzodiazepines</td>
<td>300</td>
<td>marijuana</td>
<td>50</td>
</tr>
<tr>
<td>cocaine</td>
<td>300</td>
<td>methamphetamine</td>
<td>1000</td>
</tr>
<tr>
<td>ecstasy</td>
<td>1000</td>
<td>propoxyphene glucoronide</td>
<td>10</td>
</tr>
<tr>
<td>methamphetamine</td>
<td>1000</td>
<td>buprenorphine</td>
<td>12.5</td>
</tr>
<tr>
<td>methadone</td>
<td>300</td>
<td>buprenorphine glucuronide</td>
<td>10</td>
</tr>
<tr>
<td>opiates</td>
<td>300</td>
<td>new</td>
<td>new</td>
</tr>
<tr>
<td>oxycodone</td>
<td>100</td>
<td>new</td>
<td>new</td>
</tr>
<tr>
<td>phencyclidine</td>
<td>25</td>
<td>new</td>
<td>new</td>
</tr>
</tbody>
</table>
An Evaluation of Non-Instrumented Drug Test Devices
Substance Abuse and Mental Health Services Administration (SAMHSA)
Division of Workplace Programs.

The purpose of this study (below) was to evaluate the performance of 15 point of collection drug test devices. The results were compared to the Syva EMIT assays run on a Behring Diagnostics ETS analyzer.

The Rapid Drug Screen® (RDS®) was ranked the most accurate multi-drug device for all drugs as compared to GC/MS. InCup utilizes the same tests as Rapid Drug Screen.

Note: The entire study may be found at http://workplace.samsha.gov/resourcecenter/r409.htm
**USEFUL INFO**

**READING RESULTS**

All our Rapid Drug Screens have built in procedural Control Lines to verify that the test is indeed "working".

The control line should appear first on all test windows. If the control line does not appear then the test should be deemed invalid and another test used.

A second line should then appear for all tests—this indicates a **NEGATIVE TEST** (2 lines in each test window).

The intensity of either line is **not important**.

These guidelines should be followed:

1. **A Single Line = POSITIVE**
2. **A Double Line = NEGATIVE**

NO Control Line = NO RESULT**/Invalid

**No result/invalid** cards should be returned to us with their batch #, Lot# and expiry date noted (from foil pouch). American Bio Medica Corp retain tests from each Batch and Lot # for integrity issues should they arise. We will replace any invalid test.

Tests should be stored at room temperature and have a shelf life of 12+ months.
## COST COMPARISONS RDS

### COST COMPARISON BETWEEN RAPID DRUG SCREEN (RDS) VERSUS OTHER COMPETITORS
(based on standard 5 panel screen with cup)

<table>
<thead>
<tr>
<th>5 PANEL TEST with cup</th>
<th>MINIMUM ORDER REQ’D</th>
<th>COST</th>
<th>X QTY 20</th>
<th>Additional cost to customer (on 20 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDS INCUP</td>
<td>1</td>
<td>$18.00</td>
<td>$360</td>
<td></td>
</tr>
<tr>
<td>EZY TEST</td>
<td>25</td>
<td>$20.00</td>
<td>$400</td>
<td>+ $40</td>
</tr>
<tr>
<td>ADV DIAG</td>
<td>10</td>
<td>$21.75</td>
<td>$435</td>
<td>+ $75</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>$25.00</td>
<td>$500</td>
<td>+ $140</td>
</tr>
</tbody>
</table>

$$ Cost Savings on 20 units BETWEEN $40 - $140

### COST COMPARISON BETWEEN RAPID DRUG SCREEN VERSUS LABORATORY TESTING
(example only—based on US statistics in NZ$ equivalent)

<table>
<thead>
<tr>
<th>5 Panel Test</th>
<th>Total # of tests</th>
<th>Positive</th>
<th>Negative</th>
<th>Cost per positive</th>
<th>Cost per negative</th>
<th>Total cost NZ$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Laboratory testing</td>
<td>1000</td>
<td>30</td>
<td>970</td>
<td>Up to $300</td>
<td>Up to $75</td>
<td>$81,750</td>
</tr>
<tr>
<td>Using Rapid Drug Screen</td>
<td>1000</td>
<td></td>
<td>970</td>
<td></td>
<td>$18</td>
<td>$17,460</td>
</tr>
<tr>
<td>Negative Screens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Confirmations for positive screens</td>
<td>30</td>
<td></td>
<td></td>
<td>Up to $300</td>
<td></td>
<td>$9,000 $26,460</td>
</tr>
</tbody>
</table>

**TOTAL COST SAVINGS/1000 TESTS** $55,290
For further information or pricing on any of the products in this catalogue or assistance with any aspect of drug and alcohol detection please contact us by any of the above methods - or to contact a particular staff member see below:

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