Dextromethorphan	Loperamide
Diazepam	Loxapine succin
Diclofenac	Maprotiline
Diethylpropion	Meperidine
Diflunisal	Meprobamate
Digoxin	Methadone
Diphenhydramine	Methaqualone
Doxylamine	Methylphenidat
Ecgonine hydrochlo-	Methyprylon
ride	Morphine-3-ß-D
ß-Estradiol	glucuronide
Ethyl-p-	Nalidixic acid
aminobenzoate	Nalorphine
Fenoprofen	Naloxone
Furoxmide	Naproxen
Gentisic acid	Nifedipine
Glutethimide	Norcodein
Guaifenesin	Norethindrone
Hippuric acid	Noroxymorphon
Hydrochlorothiazide	D-Norpropoxy-
Hydrocodone	phene
Hydrocortisone	Noscapine
Hydromorphone	Nylidrin
3-Hydroxytyramine	D,L-Octopamine
O-Hydroxyhippuric	Oxalic acid
acid	Oxazepam
Ibuprofen	Oxolinic acid
Imipramine	Oxycodone
Iproniazid	Oxymetazoline
(–) Isoproterenol	Oxymorphone
Isoxsuprine	Papaverine
Ketamine	Penicillin-G
Ketoprofen	Pentazocaine
Labetalol	Pentobarbital
Levorphanol	Perphenazine
Lidocaine	Phencyclidine

nide Phendimetrazine
ne succinate Phenobarbital
line Phenytoin
line Phenylpropanolaamate mine

amate mine
one Prednisolone
ualone Prednisone
bhenidate Promazine
rylon Promethazine
ne-3-ß-D- D,L-Propanolo

Promazine
Promethazine
D,L-Propanolol
Propiomazine
D-Propoxyphene

cacid D-Propoxyph nine Quinidine ne Quinine en Salicylic acid ne Secobarbital ein Serotonin

ndrone Sulfamethazine
morphone Sulindac
ropoxy- Temazepam
ne Tetracycline
ine Tetrahydrocortisone

Ä⁹Tetrahydrotopamine cannabinolcid carboxylic acid

Tetrahydrozoline
Thebaine
Thiamine
Thioridazine
D,L-Thyroxine
Tolbutamide
Triamterene
Trifluoperazine

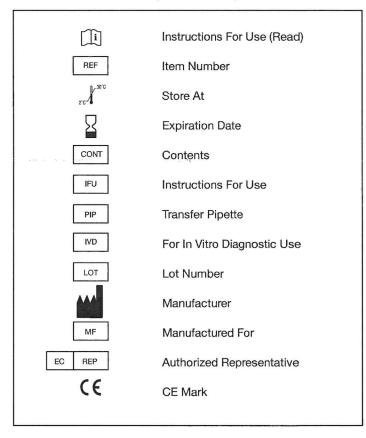
Trimethoprim

Trimipramin

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Symbols Key



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Status DS Nicotine

One-Step Nicotine Test

For Laboratory In Vitro Use Only

Simple One-Step Immunoassay for the Qualitative Detection of Nicotine Metabolite in Urine

CLIA Complexity: Moderate

Stock No. 21735 35 Test Kit 21710 10 Test Kit

Intended Use

The **Status DS Nicotine** test is a simple, one-step, immuno-chromatographic assay for the rapid, qualitative detection of cotinine, a major metabolite of nicotine, at the cut-off of 500 ng/mL in human urine. **Status DS Nicotine** is used as an aid in the detection of cotinine after use of tobacco products or other products containing nicotine. For *In vitro* Diagnostic Use

The **Status DS Nicotine** test provides only a preliminary analytical result. A more specific alternative chemical method must be used in order to obtain a confirmed analytical result. Gas chromatography, mass spectrometry (GC/MS) is the preferred confirmatory method.

Summary and Explanation

Smoking has been identified as a major risk factor for lung cancer and cardiovascular disease. ^{1,2} Self-reporting of smoking status is not reliable. ³ The detection of cotinine, a major metabolite of nicotine, has become the preferred biomedical method of assessing the smoking status of individuals on account of its sensitivity and specificity. ⁴

Cotinine is present in blood, urine, and saliva of individuals who smoke or chew tobacco or who inhale tobacco smoke produced by others. As an objective indicator of nicotine intake or confirmation of nonsmoker status, cotinine offers several advantages over other biochemical measures: it is a specific indicator of nicotine intake, its concentrations are not influenced by confounding factors such as diet or environment, its average biological half-life in blood is 19 hours, and its concentration within a given individual varies by only 15 to 20% over the course of a day. 5 Cotinine assay is thus a superior objective measure of exposure to nicotine.

Principle

The **Status DS Nicotine** test uses solid-phase chromatographic membrane immunoassay technology for a qualitative detection of a nicotine metabolite, cotinine, in human urine. The test is based on the principle of the highly specific immunochemical reactions between antigens and antibodies which are used for the analysis of specific substances in biological fluids. The test relies on the competition to bind to the antibodies between the cotinine conjugate and cotinine that may be present in the urine sample. In the test procedure, a sample of urine is placed in the Sample well of the device and is allowed to migrate upward. If cotinine is present in the urine sample, it competes with the cotinine conjugate, which is bound to the dye, for the limited antibodies immobilized on the membrane. If cotinine level is above the cutofflevel, cotinine will saturate the antibodies, thus inhibiting

the binding of the dye coated with cotinine conjugate to the antibodies on the membrane. This prevents the formation of a line on the membrane. Therefore, a cotinine-positive urine sample will not generate a line at the Test position (T) in the Result window, indicating a positive result from positive cotinine competition, while a negative urine sample will generate a line at the Test position in the Result window, indicating a negative result from an absence of competition with free cotinine.

In addition to the Test line that may appear at the Test position (T), a Control line is present at the Control position (C) to confirm the viability of the test. This Control line (validation line) should always appear if the test is conducted properly. This works as a procedural control, confirming that proper sample volume was used and the reagent system at the control line and the conjugate-color indicator worked. If insufficient sample volume is used, there may not be a Control line, indicating the test is invalid.

Materials Provided

The **Status DS Nicotine** test kit contains all the reagents necessary to perform the assay.

- Status DS Nicotine device. The test device contains a membrane strip and a dye pad: The membrane strip is coated with monoclonal anti-cotinine antibody and the dye pad contains dye coated with cotinine-protein conjugate.
- Disposable specimen dispenser.
- Instructions for use.

Materials Needed but Not Provided

- Timer
- External positive and negative controls

Precautions

- · For in vitro diagnostic use only.
- Avoid cross contamination of urine samples by using a new urine specimen container and dropper for each urine sample.
- Urine specimens are potentially infectious. Proper handling and disposal methods should be established according to good laboratory practices.
- The Status DS Nicotine device should remain in its original sealed pouch until ready for use. Do not use the test if the pouch is damaged or the seal is broken.
- Do not use the test kit after the expiration date.

Storage and Stability

The **Status DS Nicotine** test kit should be stored at 2–30°C (35–86°F) in the original sealed pouch. The expiration dating given was established under these storage conditions.

Specimen Collection and Preparation

Approximately $110\,\mu L$ of urine sample is required for each test. Fresh urine specimens do not require any special handling or pretreatment. Specimens should be collected in a clean glass or plastic container. If testing will not be performed immediately, specimens should be refrigerated (2–8°C) or frozen. The stability of specimens in a refrigerator or a freezer is established up to 5 weeks. Specimens should be brought to room temperature before testing.

Specimens containing a large amount of particulate matter may give inconsistent test results. Such specimens should be clarified by centrifuging or allowing settling before testing.

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