

# COMPREHENSIVE 5-PANEL SAMPLE VALIDITY TEST



## VDX 5-TEST PANEL

- ✓ Counterfeit Urine Test
- ✓ Oxidant History Test
- ✓ Specific Gravity Index
- ✓ pH
- ✓ Creatinine

## DETECTS 18-CLASSES OF SUBVERSION

- ✓ Counterfeit Urine
- ✓ Oxidant Adulterants
- ✓ Simple Dilution
- ✓ Acid Alkali
- ✓ Urine of Another
- ✓ Freeze Dried Human Urine
- ✓ Cationic Detergent
- ✓ Enzyme Inhibitors
- ✓ Glucuronidase Inhibitors
- ✓ Heavy Metals
- ✓ Salt Adulterants
- ✓ In-Vivo Dilution
- ✓ Glutaraldehyde
- ✓ Protease
- ✓ Acid Buffer
- ✓ Alkaline Buffer
- ✓ Catheter Use for Substitution\*\*
- ✓ Prescription Abuse for DOA

\*\* SD Elevations may have additional causes.

## TRUE URINE SD TEST DETECTS SYNTHETIC URINE

VDx has identified markers present in human urine which are measured to determine if the specimen originated from the urinary tract. The SD marker, called Urinary Tract Proteins IV (UTP-II & III) is a glycoprotein entering the urine from various parts of the urinary tract. The principal origin of the SD UTP-II & III is the kidney and the balance of the protein is from other parts of the urinary tract.

The UTP-II & III proteins are stable in urine for at least two days at room temperature (20-30 °C) or for one week at refrigerated temperatures (2-8 °C). The finite stability of the markers was chosen to make the inclusion of these markers in counterfeit or substituted urine difficult.

## PH SCREEN REAGENT

The VDX pH Screen Reagent test is based upon the color change of a pH-indicator dye mixture which is measured spectrophotometrically at two wavelengths. Acid adulteration detected as low as pH 1.5.

## OXIDANT HISTORY DETECTS OXIDANTS FOR UP TO 30 DAYS

The VDX Oxidant History test measures markers normally present in urine which have been identified by VDX to be destroyed by the oxidant adulterant stealth™. Consequently, the absence of these markers detects oxidation even though the oxidant adulterant may no longer be present. As a consequence of detecting markers, not the oxidant per se, the history of oxidation can be detected for weeks following adulteration.

## URINE CREATININE DETECTS SIMPLE DILUTION AND IN-VIVO OVERHYDRATION

The VDX Urine Creatinine reagent system utilizes an alkaline picrate solution with an added compound to decolorize endogenous bilirubin, hemoglobin, and protein, thus eliminating interference. The creatinine reaction is measured kinetically to virtually eliminate interferences from non-creatinine Jaffe-positive substances. Improvements include no interference from blood in urine, linear up to 500 mg/dL with no dilution.

## SPECIFIC GRAVITY INDEX

### DETECT SALTS INCLUDING BAKING SODA, SODIUM AND POTASSIUM

The VDx automated SGI test enzymatically measures both sodium and potassium using a sodium-potassium dependent  $\beta$  galactosidase as an index of specific gravity.

A low SGI value may be accompanied by a low Oxidant History value and a low Urine Creatinine value. In this case, the low Oxidant History value is due to sample dilution rather than the effects of an oxidant.

If the subject has loaded with creatine and/or protein and consumed excess water prior to sample collection, the SGI value will be positive for dilution, the Urine Creatinine value may be normal, and the Oxidant History value may be decreased.

A high SGI value may be accompanied by a pH above 9.5 is indicative of adulteration by liquid drain opener or other strong alkali.

## VDX 5 TEST PANEL

ITEM/PART NO.	PRODUCT DESCRIPTION
V-SVTPANEL-KIT	<b>True Urine SD Reagent</b> (Synthetic Urine) R1(4x50ml) R2(4x20ml) AU Series (1600 test)
	<b>Specific Gravity Index Reagent</b> R1(4x50ml) R2(4x20ml) AU Series (1600 test)
	<b>Oxidant History Reagent</b> R1(4x50ml) R2(4x20ml) AU Series (1600 test)
	<b>PH Reagent</b> R1(4x 50ml) AU Series (1600 tests)
	<b>Urine Creatinine</b> R1(3x20ml) R2(6x50ml) AU Series (1600 test)

## CONTROLS & CALIBRATIONS

ITEM/PART NO.	PRODUCT DESCRIPTION
V-AOXH-CAL-CTL	<b>Oxidant History</b> Calibrator & Controls (1 ea. 50ml low/hi ctl 1 ea. 25ml cal)
GPR560-SC	<b>Urine Creatinine</b> Control / Calibrators
V-ASG-CAL	<b>Specific Gravity</b> Calibrator Kit (4x25 ml)
V-ASG-CTL	<b>Specific Gravity</b> Control Kit (2x50 ml)
V-APHCALC	<b>pH</b> Calibrator Kit 25 ml each Level I 3.0 & Level II 10.5
V-APHCTL	<b>pH</b> Control Kit - low and high 50ml each
V-TRUU-SD-CTL-CAL	<b>TRUE Urine</b> SD Calibrator & Control set (1 ea. 50 ml low/hi ctl 1 ea. 25ml cal)