



Teco Diagnostics

Intended Use

For the qualitative or semi-quantitative determination of various analytes in human urine.

Principle

The presence of specific compounds in urine is used to determine the approximate values of the various analytes. Reactions between chemicals on the pads and said compounds in urine, combined with certain color indicators, produce colors that correlate with the presence and concentration of the relevant analyte.

See package inserts for detailed principles for each analyte.

CONTACT US:

TECO DIAGNOSTICS

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TEST:

Urine Reagent Strip-4S (URS-4S)
Protein/pH/SG/Glucose

Format:

Strip

Method:

Color Indicator

Testing Procedure:

Manual

Storage Temperature:

15-30°C

Expected Values/Sensitivity:

Glucose: Concentrations as little 0.1g/dL may be significantly abnormal if found consistently (100mg/dL sensitivity)

Specific Gravity: Random urine varies in specific gravity from 1.003-1.040+ (correlates within 0.005 with values obtained with the refractive index method)

pH: Newborn: 5.0-7.0; Thereafter: 4.5-8.0 ; Average: 6.0 (quantitative differentiation of values to one unit)

Protein: 1-14mg/dL may be excreted by the normal kidney (15mg/dL sensitivity)

Limitations of Procedure:

Glucose: Moderate amounts of ketone bodies (40mg/dL or greater) may decrease color development in urine containing small amounts of glucose (75-125mg/dL). However, such concentration of ketone simultaneously with such glucose concentration is metabolically improbable in screening. The reactivity of the glucose test decreases as the specific gravity and/or ascorbic acid of the urine increases. Reactivity may also vary with temperature.

Specific Gravity: The chemical nature of the specific gravity test may cause slightly different results from those obtained with the specific gravity methods when elevated amounts of certain urine constituents are present. Highly buffered alkaline urine may cause low readings relative to other methods. Elevated specific gravity readings may be obtained in the presence of moderate quantities (100-750mg/dL) of protein.

pH: If proper procedure is not followed and excess urine remains on the strip, a phenomenon known as "running over" may occur, in which the acid buffer from the protein reagent are runs onto the pH area, causing a false lowering in the pH result.

Protein: False positive results may be obtained with highly alkaline urine. Contamination of the urine specimen with quarternary ammonium compounds may also produce false positive results.

Expected Shelf Life:

90 days at 15-30°C once opened

18 months at 15-30°C unopened