

Urine Strips -2 Para (Microalbumin and Creatinine)

For the Semi-quantitative detection of Microalbumin and Creatinine

INTENDED USE

2 Para Urine Test Strips contains solid phase reagent areas affixed to a plastic stick. They are provided as a dry reagent. 2 Para Urine Test Strips provide test for the semi-quantitative determinations of Microalbumin and Creatinine. The test results may provide information regarding the status of carbohydrate metabolism, Kidney function, liver function, acid base and urinary tract infection.

SUMMARY AND EXPLANATION

The urinalysis test strips are ready to use upon removal from the bottle. The entire reagent strips are disposable, No additional laboratory equipment is necessary for testing. The directions must be followed exactly. Accurate timing is essential to provide optional results.

The strips are packaged in a plastic bottle, containing desiccant. The bottle must be capped tightly to maintain reagent activity.

TEST PRINCIPLE

Microalbumin: At a constant pH, albumin binds with sulfonephthalein dye to develop of any blue color. The resulting color ranges from pale green to aqua blue.

Creatinine: In this assay, creatinine reacts with a creatinine indicator in an alkaline condition to form a purplish-brown color complex. The concentration of creatinine is directly proportional to the color intensity of the test pad

REAGENT COMPOSITON

Microalbumin: 1.9% w/w sulfonephthalein color; 94.2% w/w buffer; 3.9% w/w non-reactive ingredients.

Creatinine: 2.5% w/w copper sulfate; 4.5% w/w benzidine; 56.4% buffer; 36.6% w/w non-reactive ingredients.

Materials Provided

- 1. 2 Para urine test strips
- 2. Color label chart
- 3. Instructions for use.

Materials required but not provided

- 1. Urine collection cup
- 2. Clock or timer.

PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. Do not touch areas of strips.
- 3. After removing a test strip, replace cap on bottle promptly.
- 4. Working area should be free of detergents and other contaminants.

STORAGE

- 1. Storage at room temperature between $15-30^{\circ}$ C (59-89 F) and out of direct sunlight.
- 2. Do not use after expiry date
- 3. Do not refrigerate or freeze.

- 4. Store all test strips in the original bottle. Do not remove the desiccant from bottle.
- 5. Close the bottle cap tightly after each use.

SPECIMEN COLLECTION

- 1. Urine should be collected in a clean container, either plastic or glass. Do not centrifuge.
- 2. If testing cannot be done within an hour after voiding, refrigerate the specimen immediately.

RECOMMENDED HANDLING PROCEDURE

All unused strips must remain in the original bottle. Transfer to another container may cause reagents strips to deteriorate and become unreactive. Do not remove strips from the bottle until immediately before it is used for testing. Replace cap immediately and tightly after removing reagents strips.

GOOD LABORATORY PRACTICE

- 1. Urine collection containers are to be clean with no contamination.
- The urine chemistry analyzer is to be cleaned daily. The instrument is first turned on, an optical calibration and self test procedure must be performed.
- 3. Each day, the laboratory must run a negative and positive control before each routine test.

TEST PROCEDURE

- 1. Bring specimens to room temperature before use.
- 2. Remove 2 Para strip from the bottle. Replace cap immediately.
- 3. Inspect the strip. (Discoloration or darkening of reagent test areas may indicate deterioration. Do not use the strip.)
- 4. Immerse test areas of the strip completely in urine and remove immediately to avoid dissolving of reagents.
- 5. To remove excess urine, run the edge of the strip against rim of the urine container. Hold the strip in horizontal position to prevent possible mixing of chemicals from adjacent reagent areas. Excess urine may also be removed by gently blotting the lengthwise edge on absorbent paper.
- 6. Compare the optimal results carefully with the color chart on the bottle label in a good light.
- 7. Note: The optimal reading time of each test parameter varies from 30 to 60 seconds. Changes in color that appear only in the edges of the test areas or after more than 60 secs are of no clinical significance.

RESULTS

The results are obtained by dipping the strips in urine and direct comparison of the test strip with the color blocks printed on the bottle label.

LIMITATIONS

Microalbumin: At a constant pH, albumin binds with sulfonephthalein dye to develop of any blue color. The resulting color ranges from pale green to aqua blue.

Creatinine: In this assay, creatinine reacts with a creatinine indicator in an alkaline condition to form a purplish-brown color complex. The concentration of creatinine is directly proportional to the color intensity of the test pad.

Creatinine)



Expected values:

Microalbumin: At a constant pH, albumin binds with sulfonephthalein dye to develop of any blue color. The resulting color ranges from pale green to aqua blue.

Creatinine: In this assay, creatinine reacts with a creatinine indicator in an alkaline condition to form a purplish-brown color complex. The concentration of creatinine is directly proportional to the color intensity of the test pad.

NORMAL VALUE REFERENCE

Microalbumin: detects concentration as low as 10 mg/L. Creatinine: detects concentration as low as 100 mg/L

PERFORMANCE CHARACTERSTICS

Studies comparing the 2 Para Urinalysis Strip and other commercially available strips resulted in greater than 99% agreement with 60 urine samples.

BIBLIOGRAPHY

- A.H. Free and H.M. Free "Urinalysis critical discipline of clinical science "CRC Critical Reviews in Clinical Laboratory Sciences, 481-531, 1972.
- 2. H.Free et. Al., "A comparative study of qualitative tests for ketones in urine and serum" Clin. Chem., 4,323, 1958.
- J.M. Wilson and G.Hunger "Principles and practice of screening for disease "Public Health Papers Bo. 34, World Health Organization, Geneva, 1986.

GLOSSARY OF SYMBOL

Ţ <u>i</u>	Consult Instruction for Use
REF	Catalog Number
	Store between
	Manufacturer
类	Keep away from sunlight



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