Newborn screening of Phenylketonuria

Fully quantitative fluorometric screening kit for PKU

- Simple and easy to perform
- Excellent analytical sensitivity
- Extensive experiences from worldwide customers
- Calibrated against international reference preparations
Neonatal Phenylalanine

Neonatal phenylalanine assay is a chemical method intended for the quantitative determination of phenylalanine from dried blood spots. Phenylalanine eluted from dried blood spots forms a fluorescent compound with ninhydrin. The fluorometric response is greatly enhanced by the presence of a dipeptide L-leucyl-L-alanine. The pH during the reaction is strictly controlled by succinate buffer at 5.8 ± 0.1 in order to optimize fluorescence and maximize specificity. Copper reagent is added to stabilize the fluorescent complex and enhance the signal. Fluorescence is measured with at 485 nm (excitation wavelength being 390 nm).

PKU Test procedure

1. Punch 3.2 mm sample disks, add 80 μl of 80% ethyl alcohol.
2. Incubate 30 min at RT on a shaker with 900 rpm.
3. Transfer 50 μl eluate, and add 50 μl reaction mixture.
4. Incubate 1 h at 60 °C
5. Add 200 μl copper reagent
6. Incubate 15 min at RT
7. Measure at ex. 390 nm, em. 485 nm

<table>
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<tr>
<th>Cat.no.</th>
<th>Product name</th>
<th>Plate type</th>
<th>Packing size</th>
<th>Regulatory status</th>
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<td>Neonatal Phenylalanine</td>
<td>96 well solid</td>
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<td>Neonatal Phenylalanine Controls</td>
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<td>5 sets of 2 levels</td>
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Type 903 filter paper is used in all products.