

## Lactulose Fluorometric Assay Kit

**Cat. No.** Kit-0501    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b> | Lactulose Assay Kit (Fluorometric) is used to measure Lactulose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>Lactulose is a synthetic disaccharide composed of galactose and fructose. It is closely related to lactose which is a disaccharide consisting of galactose and glucose. Since Lactulose is not absorbed by the gut; it is therefore used as a laxative and for hepatic encephalopathy and is considered a prebiotic. It is detectable in heated milk since it is easily formed by isomerization of lactose at elevated temperatures or in alkaline solutions. Significant background is observed in traditional assays where glucose formed from the fructose is used to measure the lactulose concentration in the samples. The Lactulose Assay Kit (Fluorometric) provides a simple, sensitive, &amp; convenient assay to measure Lactulose. In this kit, fructose is directly measured using Lactulose Enzyme Mix after hydrolysis of Lactulose into galactose and fructose. The linear range of the assay is between approximately 10 pmol and 1 nmol.</p> |
| <b>Applications</b>     | Determination of lactulose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Usage</b>            | For research use only (RUO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage</b>          | Store kit at -20°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Kit Components</b>   | <p>Lactulose Hydrolysis Buffer 25 mL<br/>Hydrolysis Enzyme Mix (Lyophilized) 1 vial<br/>Lactulose Reaction Buffer 25 mL<br/>Lactulose Enzyme Mix (Lyophilized) 1 vial<br/>PicoProbe 300 µL<br/>Enhancement Solution 1.5 mL<br/>Lactulose Standard (100 mM) 80 µL</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| <b>Detection method</b>        | Fluorometric                           |
| <b>Compatible Sample Types</b> | Dairy products, Foods, Pharmaceuticals |