

## GlucateLL® Kit (1→3)-β-D-glucan Detection

### General Product Description

The GlucateLL kit is specific for detection of (1→3)-β-D-glucan. The assay is based upon a modification of the *Limulus* Amebocyte Lysate (LAL) pathway. GlucateLL reagent is processed to eliminate Factor C, and is therefore specific for (1→3)-β-D-glucan. The reagent does not react with other polysaccharides, including beta-glucans with different glycosidic linkages. GlucateLL is a chromogenic reagent that may be used to perform either kinetic or endpoint assays in microplate readers. The standard GlucateLL test is read at 405–410 nm.

### Sensitivity

The sensitivity for GlucateLL assay is determined by the lowest standard concentration on the standard curve used for the assay. The maximum sensitivity for GlucateLL is 3.125 pg/mL when used with a microplate reader.

### Sample to GlucateLL Ratio

**Kinetic Assay:** Reconstituted GlucateLL reagent is used at a ratio of 1:4 and a volume of 100 μL/well (55 tests/vial).

**Endpoint Assay:** Reconstituted GlucateLL reagent is used at a ratio of 1:1 and a volume of 50 μL/well (55 tests/vial).

### Performing the Test

**Kinetic Assay:** The GlucateLL/sample mixture is incubated at 37±1°C in a microplate reader equipped with a 405–410 nm filter. Software is used to construct the standard curve and calculate glucan concentrations.

**Endpoint Diazo Assay:** The GlucateLL/sample mixture is incubated at 37±1°C in a microplate heating block for the recommended time period. 50 μL each of the three diazo reagents are then added to the mixture which is then read at 540–550 nm. Software is used to construct the standard curve and calculate glucan concentrations.

### Reconstitution

GlucateLL reagent can be reconstituted differently depending on the assay you use. For endpoint assays, use 2.8 mL of only Pyrosol reconstitution buffer. For kinetic assays, combine 2.8 mL each of Pyrosol and Reagent Grade Water.

### Stability

Store all reagents at 2–8°C in the dark. Once reconstituted, GlucateLL reagent should be stored at 2–8°C and used within 2 hours. Alternatively, reconstituted GlucateLL reagent can be frozen at -20°C for 20 days, thawed once and used. The diazo reagents should be used the day they are prepared.

### Product Applications

- Analyzing final products for (1→3)-β-D-glucan
- Investigating LAL Out of Specification results
- Qualifying raw materials
- Monitoring cellulosic filter extractables
- Monitoring fungal fermentation processes
- Analyzing fermentation and cell culture media
- Monitoring airborne glucan burden

### Packaging

The GlucateLL kit is available as either an endpoint or kinetic chromogenic assay for use in microplates at different sizes: 55 test kit or 110 test kit. The kit contains the GlucateLL reagent, a (1→3)-β-D-glucan standard, buffer, glucan-free water, glucan-free microplates and diazo reagents (endpoint kit only).

### Accessory Products

1. 250 μL Pipette tips (PPT25)
2. 1000 μL Pipette tips (PPT10)
3. Pyrotubes® (TB013), 13 x 100 mm borosilicate glass dilution tubes

### GlucateLL® Kit

- #GT002 ----- Kinetic assays; 110 tests
- #GT003 ----- -With diazo reagents for  
endpoint assays; 55 tests
- #GT004 ----- Kinetic assays; 55 tests

