**WGP Dispersible**

1,3/1,6-β-glucan from *S. cerevisiae*; Dectin-1 ligand

Catalog # tlrl-wgp

For research use only

Version # 14L12-MM

**METHODS**

**Preparation of WGP Dispersible suspension (1 mg/ml)**

Stimulation of Dectin-1 can be achieved with 1 - 200 μg/ml of WGP Dispersible.

- Weigh 10 mg of WGP Dispersible.
- Add 10 ml of endotoxin-free water and vortex to homogenize.
- Serial dilutions can be prepared using the appropriate amount of water.

**WGP Dispersible induced NF-κB activation**

WGP Dispersible can be used to activate Dectin-1 in cells expressing Dectin-1, including murine macrophages RAW-Blue™ cells. These cells express Dectin-1 and an NF-κB-inducible secreted embryonic alkaline phosphatase (SEAP) gene.

For more information visit: www.invivogen.com/raw-blue

- Stimulate RAW-Blue™ cells (5 x 10⁵ cells/ml) with 10 - 200 μg/ml WGP Dispersible.
- Incubate cells and WGP Dispersible for 6 - 24 h at 37°C, 5% CO₂.
- Determine dectin-1 activation by assessing SEAP expression using a SEAP detection medium, such as QUANTI-Blue™.

**RELATED PRODUCTS**

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<tr>
<th>Product</th>
<th>Catalog Code</th>
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<tr>
<td>QUANTI-Blue™</td>
<td>rep-qb1</td>
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<tr>
<td>RAW-Blue™ Cells</td>
<td>raw-sp</td>
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<td>WGP Soluble</td>
<td>ttrl-wgps</td>
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<td>Other Dectin-1 ligands:</td>
<td></td>
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<tr>
<td>Curdlan</td>
<td>ttrl-cura</td>
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<td>HKCA (heat killed <em>C.albicans</em>)</td>
<td>ttrl-hkca</td>
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<tr>
<td>HKSC (heat killed <em>S.cerevisiae</em>)</td>
<td>ttrl-hksc</td>
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<tr>
<td>Zymosan (cell wall preparation from <em>S.cerevisiae</em>)</td>
<td>ttrl-zyn</td>
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<tr>
<td>Zymosan depleted (hot alkali treated zymosan)</td>
<td>ttrl-dzn</td>
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**DESCRIPTION**

Whole glucan particles (WGP) are beta-glucans notable for their ability to modulate the immune response. WGP Dispersible (WGP® Dispersible from Biothera) is a particulate *Saccharomyces cerevisiae* β-glucan preparation. It consists of hollow yeast cell wall “ghosts” composed primarily of long polymers of β-1,3 glucose obtained after a series of alkaline and acid extractions from *S. cerevisiae* cell wall. In contrast to other dectin-1 ligands such as Zymosan, WGP Dispersible lacks TLR-stimulating activity. Similarly to Zymosan, WGP Dispersible induces Dectin-1-dependent responses, including phagocytosis and induction of TNF-α, IL-6 and ROS (reactive oxygen species) by macrophages and dendritic cells.

InvivoGen also provides a control, WGP Soluble (WGP® Soluble), that binds Dectin-1 without activating this receptor. Furthermore, WGP Soluble significantly blocks the binding of WGP Dispersible to macrophages and its immunostimulatory effect.

WGP® Dispersible and WGP® Soluble are registered trademarks of Biothera.


**CHEMICAL PROPERTIES**

**Synonym:** 1,3/1,6-β-Glucan

**Appearance:** Beige to light brown powder