**WGP Soluble**

1,3/1,6-β-glucan from *S. cerevisiae*

Catalog # tlr-wgps

For research use only

Version # 14L12-MM

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**PRODUCT INFORMATION**

**Content:**
- 50 mg WGP Soluble

**Storage and stability:**
- WGP Soluble is shipped at room temperature. Store at room temperature. Powder is stable 1 year when properly stored.
- Upon resuspension, WGP Soluble is stable for at least 1 month at 4°C.

**DESCRIPTION**

Whole glucan particles (WGP) are beta-glucans notable for their ability to modulate the immune system. InvivoGen provides WGP in two forms, WGP Dispersible (WGP® Dispersible from Biothera), and WGP Soluble (WGP® Soluble from Biothera). WGP Dispersible is a particulate *S. cerevisiae* β-glucan preparation that induces Dectin-1-dependent responses by macrophages and dendritic cells1.

WGP Soluble is a control for WGP Dispersible, as WGP Soluble binds Dectin-1 without activating this receptor. Furthermore, WGP Soluble significantly blocks the binding of WGP Dispersible to macrophages and its immunostimulatory effect. WGP Soluble is obtained after a series of alkaline and acid extractions from *S. cerevisiae* cell wall, followed by additional proprietary steps to remove insoluble portions of the matrix. Similarly to WGP Dispersible, WGP Soluble does not activate TLR receptors7.

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

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**METHODS**

**Preparation of WGP Soluble solution (1 mg/ml)**
- Weigh 10 mg of WGP Soluble.
- Add 10 ml of endotoxin-free water and vortex to homogenize.
- Use immediately or store at 4°C.

**Working concentrations:**
1 - 200 mg/ml (when used as a control)
1 ng - 1 mg/ml (when used as an antagonist)

**Example of Dectin-1 inhibition using WGP Soluble**

WGP Soluble can be used to inhibit Dectin-1 activity in cells expressing Dectin-1, including the murine macrophage 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](http://www.invivogen.com/raw-blue)

- Add 1 ng-1 mg/ml WGP Soluble to RAW-Blue™ cells (5x10⁵ cells/ml).
- Incubate cells and WGP Soluble for 1 h at 37°C, 5% CO₂.
- Stimulate cells with a dectin-1 ligand, such as 10⁶-10⁷ HKCA cells, 10-100 mg/ml Zymosan or 10-100 mg/ml WGP Dispersible for 6 - 24 h at 37°C, 5% CO₂.
- Determine inhibition of 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>
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<tr>
<td>QUANTI-Blue™</td>
<td>rep-qb1</td>
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<td>RAW-Blue™ Cells</td>
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<td>WGP Dispersible</td>
<td>tlr-wgp</td>
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<tr>
<td>Other Dectin-1 ligands:</td>
<td></td>
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<tr>
<td>Curdlan</td>
<td>tlr-cura</td>
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<tr>
<td>HKCA (heat killed <em>C.albicans</em>)</td>
<td>tlr-hkca</td>
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<td>HKSC (heat killed <em>S.cerevisiae</em>)</td>
<td>tlr-hksce</td>
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<tr>
<td>Zymosan (cell wall preparation from <em>S.cerevisiae</em>)</td>
<td>tlr-zyn</td>
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<tr>
<td>Zymosan depleted (hot alkali treated zymosan)</td>
<td>tlr-dzn</td>
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</tbody>
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**TECHNICAL SUPPORT**

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