# RedChemExpress

## Product Data Sheet

### D-Gluconic acid calcium hydrate

| Cat. No.:<br>CAS No.:<br>Molecular Formula:<br>Molecular Weight: | HY-Y0569B<br>66905-23-5<br>C <sub>6</sub> H <sub>12</sub> O <sub>7</sub> .1/ <sub>2</sub> Ca.1/ <sub>2</sub> H <sub>2</sub> O<br>225.2 |                      |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Target:                                                          | Endogenous Metabolite; Fungal                                                                                                          |                      |
| Pathway:                                                         | Metabolic Enzyme/Protease; Anti-infection                                                                                              | 1/2 Ca <sup>2+</sup> |
| Storage:                                                         | 4°C, sealed storage, away from moisture<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)         | 1/2 H <sub>2</sub> O |

#### SOLVENT & SOLUBILITY

|  |                              | Solvent Mass<br>Concentration | 1 mg      | 5 mg       | 10 mg      |
|--|------------------------------|-------------------------------|-----------|------------|------------|
|  | Preparing<br>Stock Solutions | 1 mM                          | 4.4405 mL | 22.2025 mL | 44.4050 mL |
|  |                              | 5 mM                          | 0.8881 mL | 4.4405 mL  | 8.8810 mL  |
|  |                              | 10 mM                         | 0.4440 mL | 2.2202 mL  | 4.4405 mL  |

| BIOLOGICAL ACTIVITY       |                                                                                                                                                                                                                                                                                                            |  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Description               | D-Gluconic acid calcium hydrate is the carboxylic acid by the oxidation with antiseptic and chelating properties.                                                                                                                                                                                          |  |
| IC <sub>50</sub> & Target | Human Endogenous Metabolite                                                                                                                                                                                                                                                                                |  |
| In Vitro                  | D-gluconic acid, a simple sugar acid, is the most significant antifungal metabolite produced by Pseudomonas. str. AN5<br>against the take-all fungal pathogen in biocontrol protection <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |  |

#### REFERENCES

[1]. Kaur R, et al. Gluconic acid: an antifungal agent produced by Pseudomonas species in biological control of take-all. Phytochemistry. 2006 Mar;67(6):595-604.

#### Caution: Product has not been fully validated for medical applications. For research use only.

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