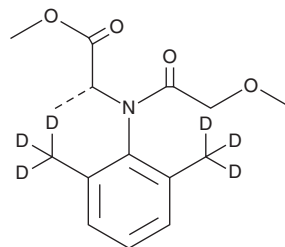


# PRODUCT INFORMATION

## (R)-(-)-Metalaxyl-d<sub>6</sub>

Item No. 39575

**CAS Registry No.:** 1398112-32-7  
**Formal Name:** methyl N-(2,6-bis(methyl-d<sub>3</sub>)phenyl)-N-(2-methoxyacetyl)-D-alaninate  
**Synonym:** (R)-(-)-Metalaxyl-d<sub>6</sub>  
**MF:** C<sub>15</sub>H<sub>15</sub>D<sub>6</sub>NO<sub>4</sub>  
**FW:** 285.4  
**Chemical Purity:** ≥95% ((R)-(-)-metalaxyl)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>6</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solution in acetonitrile  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

(R)-(-)-Metalaxyl-d<sub>6</sub> is intended for use as an internal standard for the quantification of (R)-(-)-metalaxyl by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

### Description

(R)-(-)-Metalaxyl is a fungicide and an active enantiomer of metalaxyl (Item No. 25817).<sup>1,2</sup> It is active against several isolates of the plant pathogenic fungus *P. nicotianae* (EC<sub>50</sub>s = <0.01-2.9 µg/ml).<sup>1</sup> (R)-(-)-Metalaxyl (3 g/kg of seeds) completely protects sunflower plants (*H. annuus*) from infection by *P. helianthi*.<sup>2</sup> It is toxic to *D. magna* and *D. rerio* (LC<sub>50</sub>s = 176.4 and 237.67 mg/L, respectively).<sup>3</sup> Formulations containing (R)-(-)-metalaxyl have been used in the control of fungi in agriculture.

### References

1. Hu, J., Hong, C., Moorman, G.W., et al. Mefenoxam sensitivity and fitness analysis of *Phytophthora nicotianae* isolates from nurseries in Virginia, USA. *Plant Pathol.* **57**(4), 728-736 (2008).
2. Zadra, C., Marucchini, C., and Zazzerini, A. Behavior of metalaxyl and its pure R-enantiomer in sunflower plants (*Helianthus annuus*). *J. Agric. Food Chem.* **50**(19), 5373-5377 (2002).
3. Yao, K., Zhu, L., Duan, Z., et al. Comparison of R-metalaxyl and rac-metalaxyl in acute, chronic, and sublethal effect on aquatic organisms: *Daphnia magna*, *Scenedesmus quadricauda*, and *Danio rerio*. *Environ. Toxicol.* **24**(2), 148-156 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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