



# SZABO SCANDIC

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## Produktinformation



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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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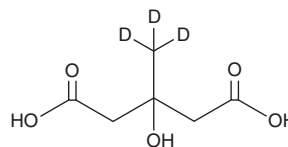
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# PRODUCT INFORMATION



## Meglutol-d<sub>3</sub> Item No. 30914

**CAS Registry No.:** 59060-36-5  
**Formal Name:** 3-hydroxy-3-(methyl-d<sub>3</sub>)-pentanedioic acid  
**Synonyms:** Dicrotallic Acid-d<sub>3</sub>, 3-hydroxy 3-methyl Glutaric Acid-d<sub>3</sub>, HMG-d<sub>3</sub>, 3-methyl-3-Hydroxyglutaric Acid-d<sub>3</sub>, Medroglutaric Acid-d<sub>3</sub>, 3-hydroxy-3-Methylglutaric Acid-d<sub>3</sub>  
**MF:** C<sub>6</sub>H<sub>7</sub>D<sub>3</sub>O<sub>5</sub>  
**FW:** 165.2  
**Chemical Purity:** ≥95% (Meglutol)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Meglutol-d<sub>3</sub> is intended for use as an internal standard for the quantification of meglutol (Item No. 33832) 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).

Meglutol-d<sub>3</sub> is supplied as a solid. A stock solution may be made by dissolving the meglutol-d<sub>3</sub> in the solvent of choice, which should be purged with an inert gas. Meglutol-d<sub>3</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of meglutol-d<sub>3</sub> in these solvents is approximately 30 mg/ml.

### Description

Meglutol is an HMG-CoA reductase inhibitor (IC<sub>50</sub> = 4 nM) and antimetabolite of mevalonic acid.<sup>1</sup> Dietary administration of meglutol (10, 20, and 30 mg/kg per day) reduces serum total cholesterol levels in normal rats, as well as reduces them in high-cholesterol fed and hypercholesterolemic rats when administered in the drinking water at a dose of 50 mg/kg per day.<sup>2</sup> It also reduces serum levels of cholesterol, triglycerides, phospholipids, and free fatty acids, as well as the severity of aortic atherosclerotic lesions, in a rabbit model of atherosclerosis induced by a high-cholesterol diet when administered at a dose of 25 mg/animal per day.<sup>3</sup> Intracerebroventricular administration of meglutol (0.5 μmol/g) induces lipid peroxidation and decreases the activity of glutathione peroxidase in the cerebral cortex of one-day old rat pups.<sup>4</sup> Meglutol accumulates in the tissues and fluids of patients with HMG-CoA lyase deficiency, a disorder characterized by metabolic acidosis, hypoglycemia, and lethargy.<sup>4</sup>

### References

1. Medina-Franco, J.L., López-Vallejo, F., Rodríguez-Morales, S., *et al. Bioorg. Med. Chem. Lett.* **15(4)**, 989-994 (2005).
2. Beg, Z.H. and Siddiqi, M. *Experientia* **23(5)**, 380 (1967).
3. Lupien, P.J., Tremblay, M., and Beg, Z.H. *Atherosclerosis* **18(3)**, 407-416 (1973).
4. da Rosa, M.S., da Rosa-Junior, N.T., Parmeggiani, B., *et al. Neurotox. Res.* **37(2)**, 314-325 (2020).

#### 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.

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