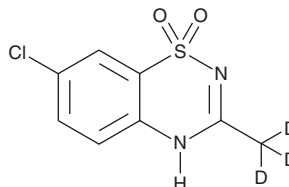


# PRODUCT INFORMATION



## Diazoxide-d<sub>3</sub> Item No. 29967

**CAS Registry No.:** 1432063-51-8  
**Formal Name:** 7-chloro-3-(methyl-d<sub>3</sub>)-4H-benzo[e][1,2,4]thiadiazine 1,1-dioxide  
**MF:** C<sub>8</sub>H<sub>4</sub>ClD<sub>3</sub>N<sub>2</sub>O<sub>2</sub>S  
**FW:** 233.7  
**Chemical Purity:** ≥95% (Diazoxide)  
**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:** ≥2 years



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

### Laboratory Procedures

Diazoxide-d<sub>3</sub> is intended for use as an internal standard for the quantification of diazoxide (Item No. 14576) 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).

Diazoxide-d<sub>3</sub> is supplied as a solid. A stock solution may be made by dissolving the diazoxide-d<sub>3</sub> in the solvent of choice, which should be purged with an inert gas. Diazoxide-d<sub>3</sub> is slightly soluble in DMSO.

### Description

Diazoxide is an activator of sulfonylurea receptor 1 (SUR1) linked to ATP-sensitive potassium channel K<sub>ir</sub>6.2 (EC<sub>50</sub> = 14.1 μM in a FLIPR assay using HEK293 cells).<sup>1</sup> It also activates SUR2A/K<sub>ir</sub>6.2 and SUR2B/K<sub>ir</sub>6.2 channels in HEK293T cells in a patch-clamp assay when used at concentrations of 30 and 300 μM.<sup>2</sup> Diazoxide inhibits glucose-induced insulin release from isolated rat pancreatic β cells and induces relaxation of isolated rat aortic rings precontracted with potassium chloride (IC<sub>50</sub>s = 22.6 and 22.4 μM, respectively).<sup>3</sup> It reduces mean arterial pressure and cerebral blood flow in spontaneously hypertensive rats when administered intravenously as a 5 mg/kg bolus dose.<sup>4</sup> Diazoxide (50 mg/kg, i.p.) increases blood glucose levels in mice.<sup>5</sup> Formulations containing diazoxide have been used in the treatment of hypoglycemia.

### References

1. Gopalakrishnan, M., Molinari, E.J., Char-Change, S., et al. *Br. J. Pharmacol.* **129**(7), 1323-1332 (2000).
2. Matsuoka, T., Matsushita, K., Katayama, Y., et al. *Circ. Res.* **87**(10), 873-880 (2000).
3. de Tullio, P., Becker, B., Boverie, S., et al. *J. Med. Chem.* **46**(15), 3342-3353 (2003).
4. Barry, D.I., Strandgaard, S., Graham, D.I., et al. *Eur. J. Clin. Invest.* **13**(3), 201-207 (1983).
5. Foy, J.M. and Furman, B.L. *Br. J. Pharmacol.* **47**(1), 124-132 (1973).

#### 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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