

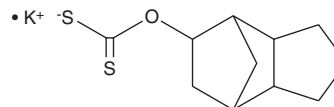
# PRODUCT INFORMATION



## D609 (potassium salt)

Item No. 13307

**CAS Registry No.:** 83373-60-8  
**Formal Name:** O-(octahydro-4,7-methano-1H-inden-5-yl) ester, carbonodithioic acid, monopotassium salt  
**Synonym:** Tricyclodecan-9-yl xanthogenate  
**MF:** C<sub>11</sub>H<sub>15</sub>OS<sub>2</sub> • K  
**FW:** 266.5  
**Purity:** ≥90%  
**UV/Vis.:** λ<sub>max</sub>: 231, 304 nm  
**Supplied as:** A crystalline 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

D609 (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the D609 (potassium salt) in the solvent of choice, which should be purged with an inert gas. D609 (potassium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of D609 (potassium salt) in these solvents is approximately 0.3, 20, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of D609 (potassium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D609 (potassium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

D609 is a xanthate and a competitive inhibitor of phosphatidylcholine-specific phospholipase C (PC-PLC; K<sub>i</sub> = 6.4 μM).<sup>1</sup> It has no effect on bacterial phosphatidylinositol-specific PLC, bovine pancreatic PLA<sub>2</sub>, or phospholipase D.<sup>2</sup> D609 reduces sphingomyelin synthase activity by 55.5 and 90.5% in membrane preparations when used at concentrations of 100 and 200 mg/ml, respectively.<sup>3</sup> Similar to other xanthates, D609 has antioxidant, antiviral, and anti-tumor activities.<sup>2</sup> In addition, it has anti-inflammatory actions, inhibiting LPS-stimulated expression of nitric oxide synthase (NOS) in phagocytes (IC<sub>50</sub> = 20 μg/ml) and IL-1β-induced expression of vascular cell adhesion molecule 1 (VCAM-1) in endothelial cells.<sup>3,4</sup>

### References

1. Amtmann, E. *Drugs Exp. Clin. Res.* **22**(6), 287-294 (1996).
2. Adibhatla, R.M., Hatcher, J.F., and Gusain, A. *Neurochem. Res.* **37**(4), 671-679 (2012).
3. Luberto, C. and Hannun, Y.A. *J. Biol. Chem.* **273**(23), 14550-14559 (1998).
4. Tschakowsky, K., Meisner, M., Schönhuber, F., et al. *Br. J. Pharmacol.* **113**(3), 664-668 (1994).
5. Cobb, R.R., Felts, K.A., Parry, G.C.N., et al. *Mol. Pharmacol.* **49**(6), 998-1004 (1996).

#### 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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