# Data Sheet (Cat.No.T1318)



## Ouabain octahydrate

#### **Chemical Properties**

CAS No.: 11018-89-6

Formula: C29H44O12·8H2O \*\* \*\* \*\*

Molecular Weight: 728.77

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



### **Biological Description**

Description	Ouabain octahydrate (Acocantherine) is a cardiac glycoside that inhibits Na(+)/K(+) ATPase. Ouabain octahydrate regulates transcription of MDR (increase, Pgp) and MRP (increase MRP1 and decrease CFTR, cyctic fibrosis transport receptor or cAMP-activated Cl- channel) genes, also alters localization of MRP1.
Targets(IC50)	ATPase,Autophagy

### **Solubility Information**

Solubility DMSO: 50 mg/mL (68.61 mM), Sonication is recommended.

H2O: 2.08 mg/mL (2.85 mM), Sonication is recommended.

(< 1 mg/ml refers to the product slightly soluble or insoluble)

#### **Preparing Stock Solutions**

		1mg	5mg	10mg
	1 mM	1.3722 mL	6.8609 mL	13.7218 mL
	5 mM	0.2744 mL	1.3722 mL	2.7444 mL
	10 mM	0.1372 mL	0.6861 mL	1.3722 mL
	50 mM	0.0274 mL	0.1372 mL	0.2744 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

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#### Reference

Kobayashi M, et al. The cardiac glycoside ouabain activates NLRP3 inflammasomes and promotes cardiac inflammation and dysfunction. PLoS One. 2017 May 11;12(5):e0176676.

Zhou D, Yang S, Yan H, et al. SC75741, a novel c-Abl inhibitor, promotes the clearance of TDP25 aggregates via ATG5-dependent autophagy pathway. Frontiers in Pharmacology. 2021: 2891.

Venugopal J, et al. Ouabain promotes partial epithelial to mesenchymal transition (EMT) changes in human autosomal dominant polycystic kidney disease (ADPKD) cells. Exp Cell Res. 2017 Jun 15;355(2):142-152.

Geng X, Wang F, Tian D, et al Cardiac glycosides inhibit cancer through Na/K-ATPase-dependent cell death induction. Biochemical Pharmacology. 2020: 114226

Lima DB, et al. Ouabain-induced alterations in ABCB1 of mesenteric lymph nodes and thymocytes of rats and mice. Oncol Lett. 2016 Dec;12(6):5275-5280.

Meng L, et al. Ouabain induces apoptosis and autophagy in Burkitt's lymphoma Raji cells. Biomed Pharmacother. 2016 Dec;84:1841-1848.

Geng X, Wang F, Tian D, et al. Cardiac glycosides inhibit cancer through Na/K-ATPase-dependent cell death induction[J]. Biochemical Pharmacology. 2020: 114226.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481

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