

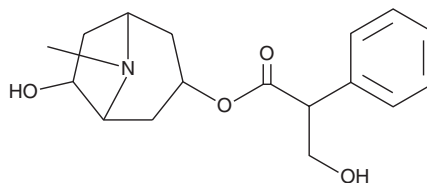
# PRODUCT INFORMATION



## Racanisodamine

Item No. 19650

**CAS Registry No.:** 17659-49-3  
**Formal Name:**  $\alpha$ -(hydroxymethyl)-benzeneacetic acid, 6-hydroxy-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester  
**Synonym:** 6-hydroxy Hyoscyamine  
**MF:**  $C_{17}H_{23}NO_4$   
**FW:** 305.4  
**Purity:**  $\geq 98\%$   
**Supplied as:** A crystalline solid  
**Storage:**  $-20^{\circ}C$   
**Stability:**  $\geq 4$  years



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

### Laboratory Procedures

Racanisodamine is supplied as a crystalline solid. A stock solution may be made by dissolving the racanisodamine in the solvent of choice. Racanisodamine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of racanisodamine in ethanol and DMF is approximately 25 mg/ml, and approximately 20 mg/ml in DMSO.

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 racanisodamine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of racanisodamine in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Racanisodamine is a natural tropane alkaloid shown to be a weak antagonist of  $\alpha_1$ -adrenoceptors, blocking WB-4101 and clonidine (Item No. 15949) binding in brain membrane preparations with  $pK_i$  values of 2.63 and 1.61, respectively.<sup>1</sup> Racanisodamine also has antioxidant effects that may protect against free radical-induced cellular damage.<sup>2</sup> Racanisodamine is predominantly found in the roots of *A. tanguticus*, which is used in traditional Chinese medicine for topical applications.<sup>3</sup>

### References

1. Varma, D.R. and Yue, T.L. Adrenoceptor blocking properties of atropine-like agents anisodamine and anisodine on brain and cardiovascular tissues of rats. *Br. J. Pharmacol.* **87(3)**, 587-594 (1986).
2. Poupko, J.M., Baskin, S.I., and Moore, E. The pharmacological properties of anisodamine. *J. Appl. Toxicol.* **27(2)**, 116-121 (2007).
3. Ma, L., Gu, R., Tang, L., *et al.* Important poisonous plants in Tibetan ethnomedicine. *Toxins (Basel)* **7(1)**, 138-155 (2015).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/29/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM