

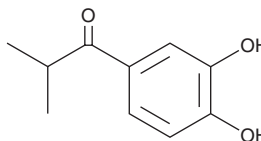
# PRODUCT INFORMATION



**U-0521**

Item No. 36314

**CAS Registry No.:** 5466-89-7  
**Formal Name:** 1-(3,4-dihydroxyphenyl)-2-methyl-1-propanone  
**Synonyms:** 3',4'-Dihydroxy-2-methylpropiophenone,  
NSC 27389  
**MF:** C<sub>10</sub>H<sub>12</sub>O<sub>3</sub>  
**FW:** 180.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 231, 277, 308 nm  
**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

U-0521 is supplied as a solid. A stock solution may be made by dissolving the U-0521 in the solvent of choice, which should be purged with an inert gas. U-0521 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of U-0521 in these solvents is approximately 5 and 3 mg/ml, respectively.

## Description

U-0521 is an inhibitor of catechol-O-methyltransferase (COMT; K<sub>i</sub> = 7.8 μM for the rat liver enzyme) and tyrosine hydroxylase (IC<sub>50</sub> = 1 μM for the rabbit adrenal enzyme).<sup>1,2</sup> It enhances epinephrine-induced contractions of isolated rabbit atria when used at a concentration of 55 μM.<sup>1</sup> U-0521 (41.5 μmol/kg) also enhances isoprenaline- or epinephrine-induced increases in blood glucose levels in pancreatectomized rats.<sup>3</sup> It decreases blood pressure in spontaneously hypertensive, but not normotensive, rats when administered at a dose of 50 mg/kg.<sup>4</sup>

## References

1. Giles, R.E. and Miller, J.W. A comparison of certain properties of catechol-O-methyl transferase to those of adrenergic beta receptors. *J. Pharmacol. Exp. Ther.* **156(2)**, 201-206 (1967).
2. Lloyd, T., Boyd, B., Walega, M.A., et al. A comparison of 2-hydroxyestradiol and U-0521 (3',4'-dihydroxy-2-methylpropiophenone, Upjohn) as *in situ* and *in vitro* inhibitors of tyrosine hydroxylase. *J. Neurochem.* **38(4)**, 948-954 (1982).
3. Proença, J., and Guimarães, S. Influence of inhibition of extraneuronal uptake and of O-methylation on the hyperglycaemia caused by sympathomimetic amines in depancreatized rats. *J. Pharm. Pharmacol.* **44(2)**, 139-141 (1992).
4. Lloyd, T. and Waldman, C.D. The antihypertensive effect of U-0521 (3',4'-dihydroxy-2-methylpropiophenone). *Life Sci.* **31(19)**, 2121-2127 (1982).

### 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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## 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