

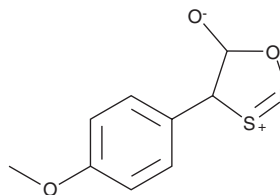
PRODUCT INFORMATION



CAY10565

Item No. 10010528

Formal Name:	4-methoxy-4-phenyl-1,3,2-oxathiazolidine-5-one
Synonym:	4-(p-methoxyphenyl)-1,3,2-Oxathiazolylium-5-olate
MF:	C ₉ H ₉ NO ₃ S
FW:	211.2
Purity:	≥95%
UV/Vis.:	λ _{max} : 202, 268, 436 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

CAY10565 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10565 in the solvent of choice, which should be purged with an inert gas. CAY10565 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10565 in ethanol is approximately 0.25 mg/ml and approximately 20 mg/ml in DMSO and DMF.

CAY10565 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10565 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10565 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

S-Nitrosothiols (RSNOs) are a class of molecules that function as exogenous and endogenous nitric oxide (NO) donors. RSNOs found *in vivo* include proteins such as S-nitrosohemoglobin and S-nitrosoalbumin, as well as low molecular weight species such as S-nitrosoglutathione (GSNO) and S-nitrosocysteine (CysNO). CAY10565 is a member of a new class of S-nitrosothiol species that act as NO donors under acidic conditions. It decomposes with a half-life of 130 minutes in 0.1 M phosphate buffer, pH 5.0, at 37°C and relaxes phenylephrine-constricted rat aortic strips 71% and 44% at pH 6.0 and 7.4, respectively.¹

Reference

1. Lu, D., Nadas, J., Zhang, G., *et al.* 4-Aryl-1,3,2-oxathiazolylium-5-olates as pH-controlled NO-donors: The next generation of S-nitrosothiols. *J. Am. Chem. Soc.* **129**(17), 5503-5514 (2007).

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, 05/09/2024

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