

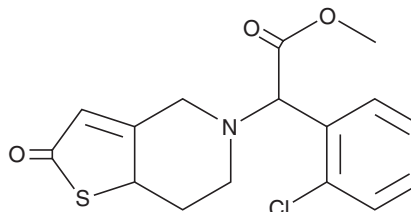
PRODUCT INFORMATION



2-oxo Clopidogrel

Item No. 20394

CAS Registry No.: 109904-27-0
Formal Name: α -(2-chlorophenyl)-2,6,7,7a-tetrahydro-2-oxo-thieno[3,2-c]pyridine-5(4H)-acetic acid, methyl ester
MF: C₁₆H₁₆ClNO₃S
FW: 337.8
Purity: \geq 98% (mixture of diastereomers)
UV/Vis.: λ_{max} : 218 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

2-oxo Clopidogrel is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-oxo clopidogrel in the solvent of choice, which should be purged with an inert gas. 2-oxo Clopidogrel is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-oxo clopidogrel in these solvents is approximately 5, 20, and 25 mg/ml, respectively.

2-oxo Clopidogrel is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2-oxo clopidogrel should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 2-oxo Clopidogrel has a solubility of approximately 0.04 mg/ml in a 1:20 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2-oxo Clopidogrel is an intermediate metabolite of (\pm)-clopidogrel (Item No. 13657), which consists of R(-)-clopidogrel and the active isomer S-(+)-clopidogrel (Item No. 21002).¹ S-(+)-clopidogrel is metabolized by the cytochrome P450 (CYP) isoforms CYP3A4 and CYP3A5 into 2-oxo (S)-(+)-clopidogrel, which is then further metabolized into the active metabolite of clopidogrel by CYP2B6, CYP2C9, CYP2C19, and CYP3A4.^{1,2}

References

1. Clarke, T.A. and Waskell, L.A. The metabolism of clopidogrel is catalyzed by human cytochrome P450 3A and is inhibited by atorvastatin. *Drug Metab. Dispos.* **31**(1), 53-59 (2003).
2. Kazui, M., Nishiya, Y., Ishizuka, T., *et al.* Identification of the human cytochrome P450 enzymes involved in the two oxidative steps in the bioactivation of clopidogrel to its pharmacologically active metabolite. *Drug Metab. Dispos.* **38**(1), 92-99 (2010).

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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