

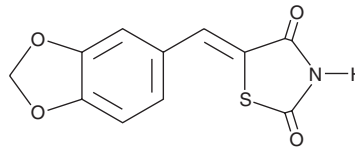
PRODUCT INFORMATION



AS-041164

Item No. 13622

CAS Registry No.: 6318-41-8
Formal Name: 5-(1,3-benzodioxol-5-ylmethylene)-2,4-thiazolidinedione
MF: C₁₁H₇NO₄S
FW: 249.2
Purity: ≥98%
UV/Vis.: λ_{max}: 355 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

AS-041164 is supplied as a crystalline solid. A stock solution may be made by dissolving the AS-041164 in the solvent of choice, which should be purged with an inert gas. AS-041164 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of AS-041164 in these solvents is approximately 25 mg/ml.

AS-041164 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AS-041164 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AS-041164 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The phosphatidylinositol 3-kinases (PI3Ks) are lipid and protein kinases involved in diverse biological processes, including cell growth, migration, and metabolism.¹ AS-041164 is a potent inhibitor of PI3K with selectivity for the class IB isoform PI3Kγ (IC₅₀ = 70 nM), compared to PI3Kα (IC₅₀ = 240 nM), PI3Kβ (IC₅₀ = 1.45 μM), and PI3Kδ (IC₅₀ = 1.70 μM).² When tested at 1.0 μM, it shows little or no activity against 38 other common kinases.² When given orally to mice, AS-041164 shows a pharmacokinetic profile that is similar to the general PI3K inhibitor LY294002 but is three times more potent (ED₅₀ = 27.4 mg/kg for AS-041164 versus 81.6 mg/kg for LY294002) in blocking neutrophil recruitment induced by RANTES.²

References

1. Hirsch, E., Ciruolo, E., Ghigo, A., *et al.* Taming the PI3K team to hold inflammation and cancer at bay. *Pharmacology & Therapeutics* **118**, 192-205 (2008).
2. Ferrandi, C., Ardissonne, V., Ferro, P., *et al.* Phosphoinositide 3-kinase γ inhibition plays a crucial role in early steps of inflammation by blocking neutrophil recruitment. *JPET* **322**, 923-930 (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.

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