

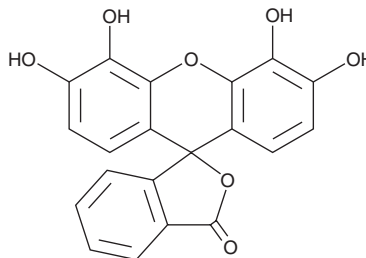
PRODUCT INFORMATION



Gallein

Item No. 16344

CAS Registry No.: 2103-64-2
Formal Name: 3',4',5',6'-tetrahydroxy-spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one
Synonyms: C.I. 45445, NSC 56445, NSC 8668, NSC 622478, Pyrogallol phthalein
MF: C₂₀H₁₂O₇
FW: 364.3
Purity: ≥95%
UV/Vis.: λ_{max}: 227 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

Gallein is supplied as a solid. Aqueous solutions of gallein can be prepared by directly dissolving the solid in aqueous buffers. Gallein is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Gallein is an inhibitor of G protein β_γ subunit-dependent signaling.¹ It binds to $G\beta_{1\gamma 2}$ in a cell-free assay ($IC_{50} = 200$ nM) and inhibits $G\beta_\gamma$ -dependent activation of PI3K in HL-60 cells. Gallein (10 μ M) also inhibits Rac1 activation, superoxide production, and chemotaxis induced by N-formyl-Met-Leu-Phe (fMLP; Item No. 21495) in differentiated HL-60 cells. *In vivo*, gallein (10 mg/kg per day) increases survival, reduces ventricular hypertrophy, and attenuates cardiac remodeling in a mouse model of heart failure induced by transverse aortic constriction (TAC).²

References

1. Lehmann, D.M., Seneviratne, A.M.P.B., and Smrcka, A.V. Small molecule disruption of G protein $\beta\gamma$ subunit signaling inhibits neutrophil chemotaxis and inflammation. *Mol. Pharmacol.* **73**(2), 410-418 (2008).
2. Kamal, F.A., Mickelsen, D.M., Wegman, K.M., et al. Simultaneous adrenal and cardiac G-protein-coupled receptor- $G\beta\gamma$ inhibition halts heart failure progression. *J. Am. Coll. Cardiol.* **63**(23), 2549-2557 (2014).

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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