

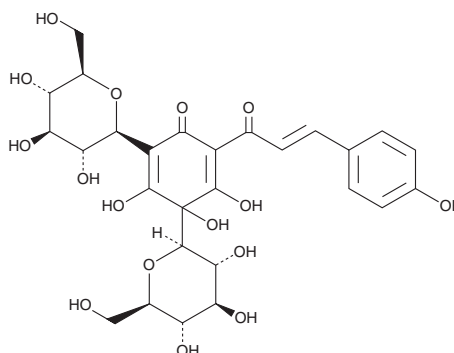
PRODUCT INFORMATION



Hydroxysafflor Yellow A

Item No. 31204

CAS Registry No.: 78281-02-4
Formal Name: 2,4-di-β-D-glucopyranosyl-3,4,5-trihydroxy-6-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propen-1-yl]-2,5-cyclohexadien-1-one
Synonym: Safflomin A
MF: C₂₇H₃₂O₁₆
FW: 612.5
Purity: ≥85%
UV/Vis.: λ_{max}: 245, 407 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Carthamus tinctorius*



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

Laboratory Procedures

Hydroxysafflor yellow A is supplied as a crystalline solid. A stock solution may be made by dissolving the hydroxysafflor yellow A in the solvent of choice, which should be purged with an inert gas. Hydroxysafflor yellow A is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of hydroxysafflor yellow A in these solvents is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of hydroxysafflor yellow A can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of hydroxysafflor yellow A in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Hydroxysafflor yellow A is a pigment that has been found in *C. tinctorius* and has diverse biological activities.¹⁻⁴ It inhibits LPS-induced increases in NF-κB levels and production of nitric oxide (NO), IL-1β, and TNF-α in primary mouse embryonic mesencephalic cultures when used at concentrations of 40 and 160 μM.² Hydroxysafflor yellow A (1 and 3 mg/kg) decreases mean arterial pressure (MAP) and heart rate in anesthetized normotensive or spontaneously hypertensive rats.³ It reduces infarct volume and serum superoxide dismutase (SOD) activity in a rat model of focal transient cerebral ischemia induced by middle cerebral artery occlusion (MCAO) when administered at doses of 2, 4, and 8 mg/kg.⁴

References

1. Ao, H., Feng, W., and Peng, C. Hydroxysafflor yellow A: A promising therapeutic agent for a broad spectrum of diseases. *Evid. Based Complement. Alternat. Med.* **8259280**, (2018).
2. Wang, T., Ding, Y.-X., He, J., et al. Hydroxysafflor yellow A attenuates lipopolysaccharide-induced neurotoxicity and neuroinflammation in primary mesencephalic cultures. *Molecules* **23(5)**, 1210 (2018).
3. Nie, P.-H., Zhang, L., Zhang, W.-H., et al. The effects of hydroxysafflor yellow A on blood pressure and cardiac function. *J. Ethnopharmacol.* **139(3)**, 746-750 (2012).
4. Wei, X., Liu, H., Sun, X., et al. Hydroxysafflor yellow A protects rat brains against ischemia-reperfusion injury by antioxidant action. *Neurosci. Lett.* **386(1)**, 58-62 (2005).

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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