

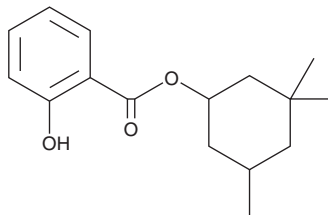
PRODUCT INFORMATION



Homosalate

Item No. 42720

CAS Registry No.: 118-56-9
Formal Name: 2-hydroxy-benzoic acid,
3,3,5-trimethylcyclohexyl ester
Synonym: NSC 164918
MF: C₁₆H₂₂O₃
FW: 262.3
Purity: ≥95% (mixture of diastereomers)
Supplied as: A neat oil
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Homosalate is supplied as a neat oil. A stock solution may be made by dissolving the homosalate in the solvent of choice, which should be purged with an inert gas. Homosalate is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

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 homosalate can be prepared by directly dissolving the neat oil in aqueous buffers. Homosalate is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Homosalate is a filter for UVB radiation.¹ It reduces ear edema induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) by 82.5 and 70% before and after UV irradiation, respectively, in mice.² Homosalate has androgenic and antiandrogenic activities in reporter assays using *S. cerevisiae* expressing the human androgen receptor (EC₅₀s = 170 and 107 μM, respectively).³ It also has anti-estrogenic activity in a reporter assay using *S. cerevisiae* expressing human estrogen receptor α (ERα; EC₅₀ = 2,060 μM). Formulations containing homosalate have been used as sun protectants in sunscreen products.

References

1. Holt, E.L., Krokidi, K.M., Turner, M.A.P., *et al.* Insights into the photoprotection mechanism of the UV filter homosalate. *Phys. Chem. Chem. Phys.* **22**(27), 15509-15519 (2020).
2. Couteau, C., Couteau, O., Chauvet, C., *et al.* The effect of ultraviolet radiation on the anti-inflammatory effect of filters. *Int. J. Pharm.* **452**(1-2), 124-127 (2013).
3. Kunz, P.Y. and Fent, K. Multiple hormonal activities of UV filters and comparison of *in vivo* and *in vitro* estrogenic activity of ethyl-4-aminobenzoate in fish. *Aquat. Toxicol.* **79**(4), 305-324 (2006).

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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