

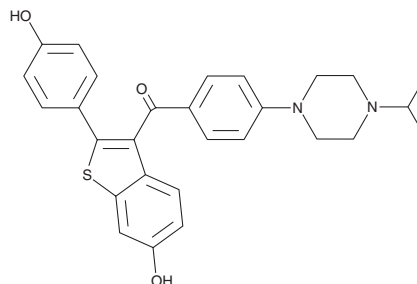
PRODUCT INFORMATION



Y134

Item No. 42393

CAS Registry No.: 849662-80-2
Formal Name: [6-hydroxy-2-(4-hydroxyphenyl)benzo[b]thien-3-yl][4-[4-(1-methylethyl)-1-piperazinyl]phenyl]-methanone
MF: C₂₈H₂₈N₂O₃S
FW: 472.6
Purity: ≥98%
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

Y134 is supplied as a solid. A stock solution may be made by dissolving the Y134 in the solvent of choice, which should be purged with an inert gas. Y134 is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

Description

Y134 is a selective estrogen receptor modulator (SERM) and derivative of raloxifene (Item No. 10011620).¹ It selectively binds to estrogen receptor α (ER α) over ER β ($K_{i,s}$ = 0.09 and 11.31 nM, respectively) and does not bind to the androgen, progesterone, glucocorticoid, or mineralocorticoid receptors. Y134 also selectively inhibits estradiol-induced activation of ER α over ER β in reporter assays using CV-1 cells (IC₅₀s = 0.52 and 2.94 nM, respectively). Y134 (1 μ M) binds to cannabinoid 1 (CB₁) and CB₂ receptors in CHO cells expressing the human receptors and reduces basal activity in the same cells when used at a concentration of 10 μ M.² It also activates the aryl hydrocarbon receptor (AhR) in a reporter assay using Hepa1 cells when used at a concentration of 10 μ M.³ Y134 inhibits estradiol-induced proliferation of MCF-7 and T47D breast cancer cells (IC₅₀s = 3.95 and 41.1 nM, respectively).¹ *In vivo*, Y134 increases bone mineral density and uterine weight in ovariectomized mice.⁴

References

1. Ning, M., Zhou, C., Weng, J., *et al.* Biological activities of a novel selective oestrogen receptor modulator derived from raloxifene (Y134). *Br. J. Pharmacol.* **150**(1), 19-28 (2007).
2. Franks, L.N., Ford, B.M., and Prather, P.L. Selective estrogen receptor modulators: Cannabinoid receptor inverse agonists with differential CB1 and CB2 selectivity. *Front. Pharmacol.* **7**, 503 (2016).
3. Jang, H.S., Pearce, M., O'Donnell, E.F., *et al.* Identification of a raloxifene analog that promotes AhR-mediated apoptosis in cancer cells. *Biology (Basel)* **6**(4), 41 (2017).
4. Yang, C., Xu, G., Li, J., *et al.* Benzothiophenes containing a piperazine side chain as selective ligands for the estrogen receptor α and their bioactivities *in vivo*. *Bioorg. Med. Chem. Lett.* **15**(5), 1505-1507 (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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/31/2025

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM