

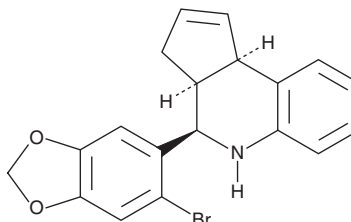
PRODUCT INFORMATION



G-15

Item No. 14673

CAS Registry No.: 1161002-05-6
Formal Name: (3a*S*,4*R*,9*bR*)-4-(6-bromo-1,3-benzodioxol-5-yl)-3a,4,5,9*b*-tetrahydro-3*H*-cyclopenta[*c*]quinoline
MF: C₁₉H₁₆BrNO₂
FW: 370.2
Purity: ≥95%
UV/Vis.: λ_{max}: 207, 243, 293 nm
Supplied as: A crystalline 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

G-15 is supplied as a crystalline solid. A stock solution may be made by dissolving the G-15 in the solvent of choice, which should be purged with an inert gas. G-15 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of G-15 in these solvents is approximately 1, 20, and 30 mg/ml, respectively.

G-15 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, G-15 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. G-15 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

G protein-coupled estrogen receptor (GPER), or GPR30, specifically binds natural and man-made estrogens.¹ It is thought to be involved in estrogen-sensitive cancers.^{1,2} GPER knockout mice are fertile, although they exhibit thymic atrophy, impaired glucose tolerance, and altered bone growth.¹ G-15 is a cell-permeable non-steroidal antagonist of GPER (K_i = 20 nM).³ It displays low affinity cross-reactivity with the classical estrogen receptor (ER), ERα, so that at doses greater than 1 μM it is capable of mediating limited ER-dependent transcriptional activity.⁴ G-15 antagonizes the anti-depressive effects of estrogen *in vivo*.³

References

1. Filardo, E.J. and Thomas, P. Minireview: G protein-coupled estrogen receptor-1, GPER-1: Its mechanism of action and role in female reproductive cancer, renal and vascular physiology. *Endocrinology* **153**(7), 2953-2962 (2012).
2. Chevalier, N., Vega, A., Bouskine, A., *et al.* GPR30, the non-classical membrane G protein related estrogen receptor, is overexpressed in human seminoma and promotes seminoma cell proliferation. *PLoS One* **7**(4), 34672 (2012).
3. Dennis, M.K., Burai, R., Ramesh, C., *et al.* *In vivo* effects of a GPR30 antagonist. *Nat. Chem. Biol.* **5**(6), 421-427 (2009).
4. Dennis, M.K., Field, A.S., Burai, R., *et al.* Identification of a GPER/GPR30 antagonist with improved estrogen receptor counterselectivity. *J. Steroid Biochem. Mol. Biol.* **127**(3-5), 358-366 (2011).

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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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