

# PRODUCT INFORMATION



## Raloxifene (hydrochloride)

Item No. 10011620

**CAS Registry No.:** 82640-04-8  
**Formal Name:** [6-hydroxy-2-(4-hydroxyphenyl)benzo[b]thien-3-yl][4-[2-(1-piperidinyl)ethoxy]phenyl]-methanone, monohydrochloride

**Synonyms:** Keoxifene, LY156758

**MF:** C<sub>28</sub>H<sub>27</sub>NO<sub>4</sub>S • HCl

**FW:** 510.0

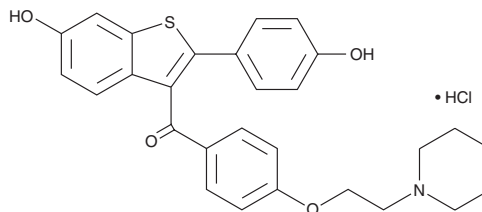
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 222, 287 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

Raloxifene (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the raloxifene (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Raloxifene (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of raloxifene (hydrochloride) in these solvents is approximately 0.1, 15, and 10 mg/ml, respectively.

Raloxifene (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, raloxifene (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Raloxifene (hydrochloride) has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Raloxifene is a selective estrogen receptor modulator (SERM) that binds to the estrogen receptor with an IC<sub>50</sub> value of 0.4 nM.<sup>1</sup> It exhibits estrogenic activity in bone cells without stimulating breast or uterine tissues.<sup>2</sup> Raloxifene guards endothelial cells obtained from rat aortic rings against oxidative insult (1 μM) and lowers serum cholesterol in ovariectomized rodents (ED<sub>50</sub> = 0.2 mg/kg).<sup>2,3</sup> Raloxifene also inhibits the voltage-gated potassium channel K<sub>v</sub>4.3 in an estrogen-independent manner (IC<sub>50</sub> = 2 μM).<sup>4</sup> Formulations containing raloxifene have been shown to reduce bone resorption and promote bone formation in post-menopausal women.<sup>5</sup>

### References

1. Sun, D., Jones, N.R., Manni, A., *et al.* *Cancer Prev. Res. (Phila)*. **6(7)**, 719-730 (2013).
2. Black, L.J., Sato, M., Rowley, E.R., *et al.* *J. Clin. Invest.* **93(1)**, 63-69 (1994).
3. Wong, C.M., Yung, L.M., Leung, F.P., *et al.* *Brit. J Pharmacol.* **155(3)**, 326-334 (2008).
4. Chae, Y.J., Kim, D.H., Lee, H.J., *et al.* *Pflugers Arch.* **467(8)**, 1663-1676 (2015).
5. Özmen, B., Kirmaz, C., Aydin, K., *et al.* *Eur. Cytokine. Net.* **18(3)**, 148-153 (2007).

#### 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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