

## Small Molecules

### Raloxifene

Selective estrogen receptor modulator

Catalog # 72852  
72854

100 mg  
500 mg



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

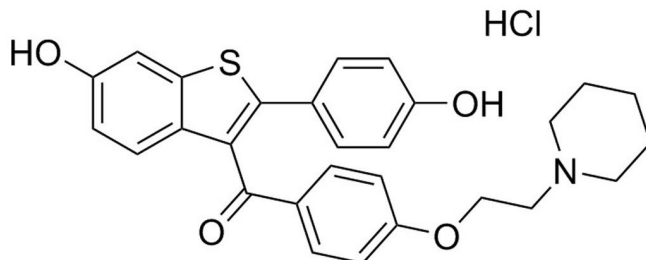
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

## Product Description

Raloxifene modulates estrogen receptor (ER) activity. It is a selective estrogen receptor modulator (SERM) that exhibits agonistic (estrogenic) activity in bone cells without stimulating ER activity in breast or uterine tissues (Black et al.). This product is supplied as the hydrochloride salt of the molecule.

Molecular Name:	Raloxifene (Hydrochloride)
Alternative Names:	Evista®; Keoxifene; LY156758
CAS Number:	82640-04-8
Chemical Formula:	C <sub>28</sub> H <sub>27</sub> NO <sub>4</sub> S · HCl
Molecular Weight:	510.2 g/mol
Purity:	≥ 98%
Chemical Name:	6-Hydroxy-2-(p-hydroxyphenyl)benzo[b]thien-3-yl-p-(2-piperidinoethoxy)phenyl ketone hydrochloride
Structure:	



## Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Solubility:	· Absolute ethanol ≤ 190 µM · DMSO ≤ 19 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 196 µL of fresh DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

## Published Applications

### DIFFERENTIATION

- Enhances osteoblast differentiation in mouse bone marrow and human osteoblast cultures (Qu et al.; Viereck et al.).
- Inhibits osteoclast differentiation in primary human bone marrow mononuclear cell cultures (Ramalho et al.).
- Reduced endodermal differentiation (HNF-4 $\alpha$  expression) in embryoid bodies derived from human embryonic stem (ES) cells (Kim et al.).

## References

- Black LJ et al. (1994) Raloxifene (LY139481 HCl) prevents bone loss and reduces serum cholesterol without causing uterine hypertrophy in ovariectomized rats. *J Clin Invest* 93(1): 63–9.
- Kim H et al. (2013) The effect of estrogen compounds on human embryoid bodies. *Reprod Sci* 20(6): 661–9.
- Qu Q et al. (1999) Comparative effects of estrogen and antiestrogens on differentiation of osteoblasts in mouse bone marrow culture. *J Cell Biochem* 73(4): 500–7.
- Ramalho AC et al. (2002) Estradiol and raloxifene decrease the formation of multinucleate cells in human bone marrow cultures. *Eur Cytokine Netw* 13(1): 39–45.
- Viereck V et al. (2003) Raloxifene concurrently stimulates osteoprotegerin and inhibits interleukin-6 production by human trabecular osteoblasts. *J Clin Endocrinol Metab* 88(9): 4206–13.

## Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, please visit our website at [www.stemcell.com/smallmolecules](http://www.stemcell.com/smallmolecules) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

This product is hazardous. Please refer to the Safety Data Sheet (SDS).

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2015 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design and Scientists Helping Scientists are trademarks of STEMCELL Technologies Inc. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.