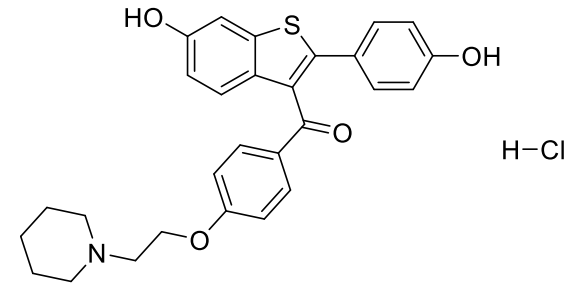
Product data sheet

MedKoo Cat#: 100761 Name: Raloxifene hydrochloride CAS: 82640-04-8 (HCl) Chemical Formula: $C_{28}H_{28}ClNO_4S$ Molecular Weight: 510.05	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

Product description:
Raloxifene is a selective estrogen receptor modulator (SERM) with effects on bone and breast cancer and cardiovascular disease risk. It is used for breast cancer and osteoporosis research.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	102	199.98

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.96 mL	9.80 mL	19.61 mL
5 mM	0.39 mL	1.96 mL	3.92 mL
10 mM	0.20 mL	0.98 mL	1.96 mL
50 mM	0.04 mL	0.20 mL	0.39 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Narendra G, Raju B, Verma H, Kumar M, Jain SK, Tung GK, Thakur S, Kaur R, Kaur S, Sapra B, Singh PK, Silakari O. Raloxifene and bazedoxifene as selective ALDH1A1 inhibitors to ameliorate cyclophosphamide resistance: A drug repurposing approach. Int J Biol Macromol. 2023 Jul 1;242(Pt 1):124749. doi: 10.1016/j.ijbiomac.2023.124749. Epub 2023 May 7. PMID: 37160174.
2. Taurin S, Rosengren RJ. Raloxifene potentiates the effect of gefitinib in triple-negative breast cancer cell lines. Med Oncol. 2022 Dec 9;40(1):45. doi: 10.1007/s12032-022-01909-3. PMID: 36494506.

In vivo study

1. Hering NA, Günzler E, Arndt M, Zibell M, Lauscher JC, Kreis ME, Beyer K, Seeliger H, Pozios I. Targeting Interleukin-6/Glycoprotein-130 Signaling by Raloxifene or SC144 Enhances Paclitaxel Efficacy in Pancreatic Cancer. Cancers (Basel). 2023 Jan 11;15(2):456. doi: 10.3390/cancers15020456. PMID: 36672405; PMCID: PMC9856922.
2. Honig MG, Del Mar NA, Moore BM, Reiner A. Raloxifene Mitigates Emotional Deficits after Mild Traumatic Brain Injury in Mice. Neurotrauma Rep. 2022 Nov 24;3(1):534-544. doi: 10.1089/neur.2022.0052. PMID: 36479361; PMCID: PMC9718433.

7. Bioactivity
Biological target:

Raloxifene HCl is a selective and orally active estrogen receptor modulator (SERM), which inhibits human cytosolic aldehyde oxidase-catalyzed phthalazine oxidation activity with IC50 of 5.7 nM.

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In vitro activity

The combined treatment of raloxifene and gefitinib decreased the ability of neovascularization as assessed by tube formation of endothelial cells. These results suggested the potential of the combination of raloxifene and gefitinib for the prevention of triple-negative breast cancer growth and the appearance of metastatic events.

Reference: Med Oncol. 2022 Dec 9;40(1):45. https://pubmed.ncbi.nlm.nih.gov/36494506/

In vivo activity

This study showed that raloxifene decreased depression, fearfulness, and anxiety after focal cranial blast traumatic brain injury in mice, using standard assays of these behavioral end-points. These results indicate that raloxifene could be used to treat deficits after mild traumatic brain injury.

Reference: Neurotrauma Rep. 2022 Nov 24;3(1):534-544. https://pubmed.ncbi.nlm.nih.gov/36479361/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.