

# Product data sheet



MedKoo Cat#: 202390 Name: Quinagolide hydrochloride CAS#: 94424-50-7 (HCl) Chemical Formula: C <sub>20</sub> H <sub>34</sub> ClN <sub>3</sub> O <sub>3</sub> S Exact Mass: 431.2009 Molecular Weight: 432.0200		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C > 4 years In solvent: -80°C 3 months; -20°C 2 weeks.	

## 1. Product description:

Quinagolide is used for the treatment of elevated levels of prolactin. Quinagolide (Norprolac) was approved in European Community, but not in USA as of December, 2011.

## 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	3.85	8.91

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.31 mL	11.57 mL	23.15 mL
5 mM	0.46 mL	2.31 mL	4.63 mL
10 mM	0.53 mL	2.67 mL	2.31 mL
50 mM	0.11 mL	0.53 mL	1.07 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

- Iampietro C, Brossa A, Canosa S, Tritta S, Croston GE, Reinheimer TM, Bonelli F, Carosso AR, Gennarelli G, Cosma S, Benedetto C, Revelli A, Bussolati B. Quinagolide Treatment Reduces Invasive and Angiogenic Properties of Endometrial Mesenchymal Stromal Cells. *Int J Mol Sci.* 2022 Feb 4;23(3):1775. doi: 10.3390/ijms23031775. PMID: 35163699; PMCID: PMC8836593.
- Jaquet P, Ouafik L, Saveanu A, Gunz G, Fina F, Dufour H, Culler MD, Moreau JP, Enjalbert A. Quantitative and functional expression of somatostatin receptor subtypes in human prolactinomas. *J Clin Endocrinol Metab.* 1999 Sep;84(9):3268-76. doi: 10.1210/jcem.84.9.5962. PMID: 10487698.

### In vivo study

- Morange I, Barlier A, Pellegrini I, Brue T, Enjalbert A, Jaquet P. Prolactinomas resistant to bromocriptine: long-term efficacy of quinagolide and outcome of pregnancy. *Eur J Endocrinol.* 1996 Oct;135(4):413-20. doi: 10.1530/eje.0.1350413. PMID: 8921822.
- Pellicer N, Galliano D, Herraiz S, Bagger YZ, Arce JC, Pellicer A. Use of dopamine agonists to target angiogenesis in women with endometriosis. *Hum Reprod.* 2021 Mar 18;36(4):850-858. doi: 10.1093/humrep/deaa337. PMID: 33355352.

## 7. Bioactivity

Biological target:

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Quinagolide hydrochloride (CV205-502 hydrochloride) is a selective and orally active dopamine D2 receptor agonist. Quinagolide hydrochloride is an inhibitor of prolactin. Quinagolide hydrochloride down-regulates AKT levels and its phosphorylation. Quinagolide hydrochloride shows antitumor effects, it can be used for the research of cancer.

## In vitro activity

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This study isolated E-MSCs from eutopic endometrial tissue and from ovarian and peritoneal endometriotic lesions and tested the effect of quinagolide on their proliferation and matrix invasion ability. Quinagolide inhibited the invasive properties of E-MSCs, but not their proliferation, and limited their endothelial differentiation. Together with the reported effects on endometrial and endothelial cells, the observed inhibition of E-MSCs may increase the rationale for quinagolide in endometriosis treatment.

Reference: Int J Mol Sci. 2022 Feb 4;23(3):1775. <https://pubmed.ncbi.nlm.nih.gov/35163699/>

## In vivo activity

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Dopamine agonists (DAs), including quinagolide, downregulated proangiogenic and upregulated antiangiogenic pathways in inflammatory, endothelial and endometrial cells, blocking cellular proliferation and reducing lesion size and pain in woman subjects. The findings of this study support the use of DAs in the medical management of endometriosis while maintaining ovulation. A combined approach of DAs and pentoxifylline may be a smart and novel method of targeting endometriosis.

Reference: Hum Reprod. 2021 Mar 18;36(4):850-858. <https://pubmed.ncbi.nlm.nih.gov/33355352/>

*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.*