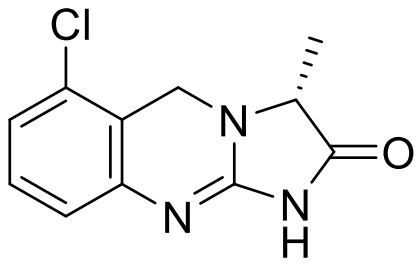
Product data sheet

MedKoo Cat#: 471035 Name: Quazinone CAS#: 70018-51-8 Chemical Formula: $C_{11}H_{10}ClN_3O$ Exact Mass: 235.0512 Molecular Weight: 235.6710	
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:
Quazinone is a selective inhibitor of phosphodiesterase 3 (PDE3) with positive inotropic and vasodilating properties.

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	5	21.22
Ethanol	1	4.24

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.24 mL	21.22 mL	42.43 mL
5 mM	0.85 mL	4.24 mL	8.49 mL
10 mM	0.42 mL	2.12 mL	4.24 mL
50 mM	0.08 mL	0.42 mL	0.85 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. Nazir M, Senkowski W, Nyberg F, Blom K, Edqvist PH, Jarvius M, Andersson C, Gustafsson MG, Nygren P, Larsson R, Fryknäs M. Targeting tumor cells based on Phosphodiesterase 3A expression. Exp Cell Res. 2017 Dec 15;361(2):308-315. doi: 10.1016/j.yexcr.2017.10.032. Epub 2017 Oct 26. PMID: 29107068.
2. Taher A, Meyer M, Stief CG, Jonas U, Forssmann WG. Cyclic nucleotide phosphodiesterase in human cavernous smooth muscle. World J Urol. 1997;15(1):32-5. doi: 10.1007/BF01275154. PMID: 9066092.

In vivo study

1. Braun S, Shargorodsky B, Talit U, Laniado S. Haemodynamic effects of Ro 13-6438, a new inotropic agent with vasodilating properties. Drugs Exp Clin Res. 1986;12(5):381-4. PMID: 3720522.
2. Eigenmann R, Gerold M, Holck M. Cardiovascular profile of Ro 13-6438, a novel positive inotropic agent with vasodilating properties. J Cardiovasc Pharmacol. 1984 May-Jun;6(3):511-9. doi: 10.1097/00005344-198405000-00021. PMID: 6202980.

7. Bioactivity
Biological target:

Quazinone is a selective inhibitor of phosphodiesterase 3 (PDE3) with positive inotropic and vasodilating properties. It induces relaxation of precontracted isolated human cavernous smooth muscle. Quazinone increases myocardial contractile force in anesthetized open-chest dogs in a dose-dependent manner, as well as decreases systolic and diastolic blood pressure. It also inhibits

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DNA synthesis induced by the PDGF isoform PDGF-BB in bovine coronary artery smooth muscle cells in a concentration-dependent manner.

In vitro activity

Quazinone had potency at least equal to that of papaverine (a non-selective PDE inhibitor) and had a superior effect compared to Rolipram (a selective PDE IV inhibitor) and zaprinast (a selective PDE V inhibitor). The relaxation effect of PDE inhibitors was evaluated in an organ-bath study. This study provides the rationale and opens the possibility of using selective PDE inhibitors in the treatment of patients with erectile dysfunction.

Reference: World J Urol. 1997;15(1):32-5. https://pubmed.ncbi.nlm.nih.gov/9066092/

In vivo activity

Quazinone increased tension development of isolated guinea pig left atria in a concentration-dependent manner with an EC50 of 30 microM, but had no stimulant effect on the spontaneous rate of right atria. In chronically instrumented, conscious dogs Quazinone increased myocardial contractility after administration of 0.03-0.3 mg/kg i.v. or 3-10 mg/kg p.o. The effects persisted for greater than 8 h after oral administration of 10 mg/kg. The inotropic effects were accompanied by a modest increase in heart rate.

Reference: J Cardiovasc Pharmacol. 1984 May-Jun;6(3):511-9. https://pubmed.ncbi.nlm.nih.gov/6202980/

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.