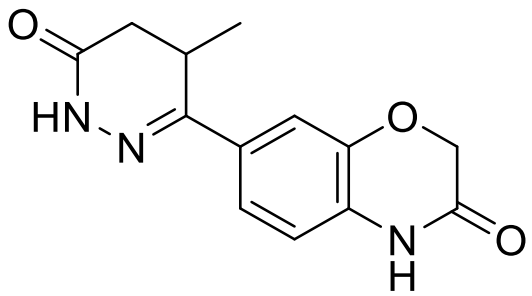
Product data sheet

MedKoo Cat#: 577826 Name: Bemoradan CAS#: 112018-01-6 Chemical Formula: $C_{13}H_{13}N_3O_3$ Exact Mass: 259.0957 Molecular Weight: 259.26	
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.

1. Product description:

Bemoradan, also known as WJ-22867, is a potent, long-acting orally active inodilator and cardiotonic agent. Bemoradan is a novel, potent positive inotropic agent, demonstrated biphasic inhibition of the fraction III enzyme from canine cardiac muscle. Bemoradan is well and rapidly absorbed after oral dosing, has linear pharmacokinetics and long elimination half-lives across species.

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
To be determined	To be determined	To be determined

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	1.74 mL	8.71 mL	17.43 mL
5 mM	0.35 mL	1.74 mL	3.49 mL
10 mM	0.17 mL	0.87 mL	1.74 mL
50 mM	0.03 mL	0.17 mL	0.35 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

To be determined

In vivo study

1. Combs DW, Rampulla MS, Bell SC, Klaubert DH, Tobia AJ, Falotico R, Haertlein B, Lakas-Weiss C, Moore JB. 6-Benzoxazinylpyridazin-3-ones: potent, long-acting positive inotrope and peripheral vasodilator agents. J Med Chem. 1990 Jan;33(1):380-6. doi: 10.1021/jm00163a061. PMID: 2153210.
2. Moore JB Jr, Combs DW, Tobia AJ. Bemoradan--a novel inhibitor of the rolipram-insensitive cyclic AMP phosphodiesterase from canine heart tissue. Biochem Pharmacol. 1991 Jul 15;42(3):679-83. doi: 10.1016/0006-2952(91)90331-x. PMID: 1650219.

7. Bioactivity

Biological target:

Bemoradan is believed to act by inhibiting various enzymes and signaling pathways involved in the development and progression of diseases. Bemoradan has been shown to inhibit the activity of various kinases, including PI3K and AKT, which are involved in cancer cell proliferation and survival. It has also been shown to inhibit the activity of GSK-3β, which is involved in the accumulation of tau protein in neurodegenerative disorders.

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In vitro activity

To be determined

In vivo activity

Bemoradan was found to be an extremely potent and selective inhibitor of canine PDE fraction III and a long-acting, potent, orally active inotropic vasodilator agent in various canine models. Positive inotropic activity was maintained for between 8 and 24 h after a single oral dose of bemoradan in dogs, thus making it a very potent and long-acting orally effective inotrope.

Reference: J Med Chem. 1990 Jan;33(1):380-6. https://pubmed.ncbi.nlm.nih.gov/2153210/