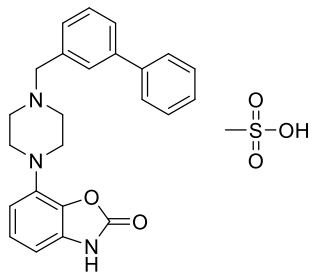
Product data sheet

MedKoo Cat#: 326984 Name: Bifeprunox Mesylate CAS#: 350992-13-1 (mesylate) Chemical Formula: $C_{25}H_{27}N_3O_5S$ Molecular Weight: 481.567	
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:
Bifeprunox, also known as DU-127090, is a partial dopamine and serotonin agonist potentially for the treatment of schizophrenia. Bifeprunox influences nicotine-seeking behaviour in response to drug-associated stimuli in rats. Bifeprunox suppresses in vivo VTA dopaminergic neuronal activity via D2 and not D3 dopamine autoreceptor activation.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.08 mL	10.38 mL	20.77 mL
5 mM	0.42 mL	2.08 mL	4.15 mL
10 mM	0.21 mL	1.04 mL	2.08 mL
50 mM	0.04 mL	0.21 mL	0.42 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

TBD

In vivo study

1. Di Clemente A, Franchi C, Orrù A, Arnt J, Cervo L. Bifeprunox: a partial agonist at dopamine D2 and serotonin 1A receptors, influences nicotine-seeking behaviour in response to drug-associated stimuli in rats. Addict Biol. 2012 Mar;17(2):274-86. doi: 10.1111/j.1369-1600.2011.00319.x. Epub 2011 Apr 26. PMID: 21521422.
2. Etievant A, Bétry C, Arnt J, Haddjeri N. Bifeprunox and aripiprazole suppress in vivo VTA dopaminergic neuronal activity via D2 and not D3 dopamine autoreceptor activation. Neurosci Lett. 2009 Aug 21;460(1):82-6. doi: 10.1016/j.neulet.2009.05.035. Epub 2009 May 18. PMID: 19450663.

7. Bioactivity
Biological target:

TBD

In vitro activity

TBD

Product data sheet

In vivo activity

Different groups of experimentally naïve, food-restricted Wistar rats were trained to associate a discriminative stimulus with response-contingent availability of nicotine or sucrose and tested for reinstatement after extinction of nicotine or sucrose-reinforced behaviour. Bifeprunox (4-16 µg/kg, s.c.) dose-dependently attenuated the response-reinstating effects of nicotine-associated cues. Higher doses (64-250 µg/kg, s.c.) reduced spontaneous locomotor activity and suppressed operant responding induced by sucrose-associated cues and by the primary reinforcing properties of nicotine or sucrose.

Reference: Addict Biol. 2012 Mar;17(2):274-86. https://pubmed.ncbi.nlm.nih.gov/21521422/