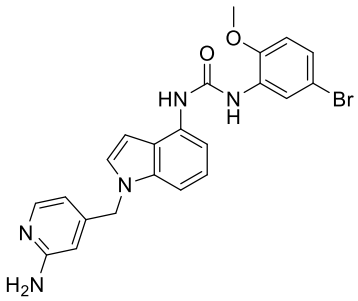
Product data sheet

MedKoo Cat#: 201611 Name: JI-101 CAS: 900573-88-8 Chemical Formula: $C_{22}H_{20}BrN_5O_2$ Exact Mass: 465.08 Molecular Weight: 466.339	
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:

JI-101 is an orally active inhibitor of vascular endothelial growth factor receptor 2 (VEGFR2), platelet-derived growth factor receptor beta (PDGFRb), and the ephrin B4 receptor B4 (EphB4) with potential antiangiogenic and antineoplastic activities. Angiogenesis inhibitor JI-101 binds to and inhibits VEGFR2, PDGFRb and EphB4, which may inhibit tumor angiogenesis and, so, cellular proliferation in tumor cells overexpressing VEGFR2, PDGFRb and EphB4. The receptor tyrosine kinases VEGFR2, PDGFRb and EphB4 may be overexpressed in a number of different cancer cell types and may play crucial roles in tumor angiogenesis.

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	100.0	214.44

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.14 mL	10.72 mL	21.44 mL
5 mM	0.43 mL	2.14 mL	4.29 mL
10 mM	0.21 mL	1.07 mL	2.14 mL
50 mM	0.04 mL	0.21 mL	0.43 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. Andolfo I, Lasorsa VA, Manna F, Rosato BE, Formicola D, Iolascon A, Capasso M. Kinome multigenic panel identified novel druggable EPHB4-V871I somatic variant in high-risk neuroblastoma. J Cell Mol Med. 2020 Jun;24(11):6459-6471. doi: 10.1111/jcmm.15297. Epub 2020 Apr 26. PMID: 32336043; PMCID: PMC7294133.

In vivo study

TBD

7. Bioactivity

Biological target:

JI-101 is an orally available multi-kinase inhibitor of VEGFR2, PDGFRβ and EphB4 with potent anti-cancer activity.

In vitro activity

The treatment with 10 μM of JI-101 also decreased the proliferation rate of EPHB4 mutant clone compared to vehicle (DMSO) in SHSY5Y cells, and also of EPHB4-WT compared to vehicle (Figure 6B) at 72 hours.

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Reference: J Cell Mol Med. 2020 Jun;24(11):6459-6471. https://pubmed.ncbi.nlm.nih.gov/32336043/

In vivo activity

TBD

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.