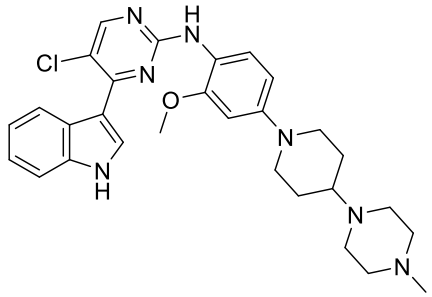
Product data sheet

MedKoo Cat#: 525381 Name: HG-14-10-04 CAS: 1356962-34-9 Chemical Formula: $C_{29}H_{34}ClN_7O$ Exact Mass: 531.2513 Molecular Weight: 532.089	
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:
HG-14-10-04 is a novel potent and specific ALK inhibitor.

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	15.0	28.19

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.88 mL	9.40 mL	18.79 mL
5 mM	0.38 mL	1.88 mL	3.76 mL
10 mM	0.19 mL	0.94 mL	1.88 mL
50 mM	0.04 mL	0.19 mL	0.38 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. Chen H, Lai M, Zhang T, Chen Y, Tong L, Zhu S, Zhou Y, Ren X, Ding J, Xie H, Lu X, Ding K. Conformational Constrained 4-(1-Sulfonyl-3-indol)yl-2-phenylaminopyrimidine Derivatives as New Fourth-Generation Epidermal Growth Factor Receptor Inhibitors Targeting T790M/C797S Mutations. J Med Chem. 2022 May 12;65(9):6840-6858. doi: 10.1021/acs.jmedchem.2c00168. Epub 2022 Apr 21. PMID: 35446588.

In vivo study

TBD

7. Bioactivity
Biological target:

HG-14-10-04 is a potent ALK and mutant EGFR inhibitor with IC_{50}s of 20 nM, 15.6 nM, 22.6 nM and 124.5 nM for ALK, $EGFR^{LR/TM}$, $EGFR^{19del/TM/CS}$ and $EGFR^{LR/TM/CS}$, respectively. HG-14-10-04 can be used to research anticancer.

In vitro activity

Representative compound 18j potently inhibited $EGFR^{19del/T790M/C797S}$ and $EGFR^{L858R/T790M/C797S}$ mutants with IC_{50} values of 15.8 and 23.6 nM and suppressed Ba/F3-$EGFR^{L858R/T790M/C797S}$ and Ba/F3-$EGFR^{19del/T790M/C797S}$ cells with IC_{50} values of 0.036 and 0.052 μM, respectively, which is 10-20-fold more potent than brigatinib. 18j also potently inhibited the $EGFR^{19del/T790M/C797S}$-mutated PC-9-OR NSCLC cell proliferation with an IC_{50} value of 0.644 μM but was less potent for parental Ba/F3 and A431 cells.

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Reference: J Med Chem. 2022 May 12;65(9):6840-6858. https://pubmed.ncbi.nlm.nih.gov/35446588/

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.