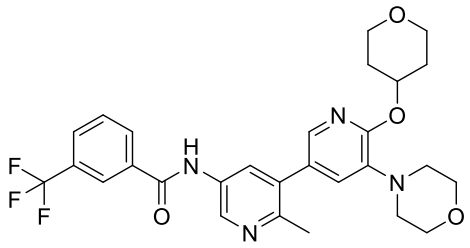
Product data sheet

MedKoo Cat#: 406990 Name: RAF709 CAS#: 1628838-42-5 Chemical Formula: $C_{28}H_{29}F_3N_4O_4$ Exact Mass: 542.2141 Molecular Weight: 542.56	
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:
RAF709 is a Raf kinase 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	100.0	184.31
DMSO:PBS (pH 7.2) (1:2)	0.33	0.61
DMF	30.0	55.29
Ethanol	100.0	184.31

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	1.84 mL	9.22 mL	18.43 mL
5 mM	0.37 mL	1.84 mL	3.69 mL
10 mM	0.18 mL	0.92 mL	1.84 mL
50 mM	0.04 mL	0.18 mL	0.37 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. Shao W, Mishina YM, Feng Y, Caponigro G, Cooke VG, Rivera S, Wang Y, Shen F, Korn JM, Mathews Griner LA, Nishiguchi G, Rico A, Tellew J, Haling JR, Aversa R, Polyakov V, Zang R, Hekmat-Nejad M, Amiri P, Singh M, Keen N, Dillon MP, Lees E, Ramurthy S, Sellers WR, Stuart DD. Antitumor Properties of RAF709, a Highly Selective and Potent Inhibitor of RAF Kinase Dimers, in Tumors Driven by Mutant RAS or BRAF. Cancer Res. 2018 Mar 15;78(6):1537-1548. doi: 10.1158/0008-5472.CAN-17-2033. Epub 2018 Jan 17. PMID: 29343524.

7. Bioactivity
Biological target:

RAF709 is a potent, selective, and efficacious RAF inhibitor with IC50s of 0.4 nM and 0.5 nM for BRAF and CRAF, respectively.

In vitro activity

Product data sheet

To be determined

In vivo activity

RAF709 elicited regression of primary human tumor-derived xenograft models with BRAF, NRAS, or KRAS mutations with excellent tolerability. RAF709 will allow preclinical therapeutic hypothesis testing, but also provide an excellent probe to further unravel the complexities of RAF kinase signaling.

Reference: Cancer Res. 2018 Mar 15;78(6):1537-1548. https://pubmed.ncbi.nlm.nih.gov/29343524/

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.