



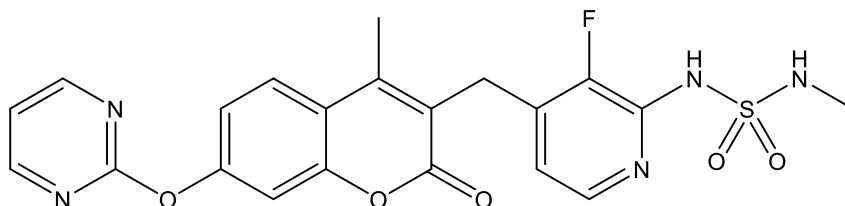
## Catalog # 10-4112

### Avutometinib

CAS# 946128-88-7

3-[[3-Fluoro-2-(methylsulfamoylamino)pyridin-4-yl]methyl]-4-methyl-7-pyrimidin-2-yloxychromen-2-one; RO5126766;  
CH5126766

Lot # FBS4066



Avutometinib is a dual MEK/RAF inhibitor (IC<sub>50</sub>s: MEK = 160 nM; CRAF = 56 nM; BRAF = 19 nM; BRAF V600E = 8nM).<sup>1</sup> It directly inhibits unphosphorylated MEK without causing induction of MEK phosphorylation by RAF. The avutemetinib-MEK adduct is a dominant-negative inhibitor of RAF, stabilizing the MEK/RAF complex and locking in an inactive form. Avutometinib displayed efficacy across multiple RAS-mutated cancer cell lines and an SK-MEL-2 xenograft model.<sup>2</sup> It displayed synergistic effects with eribulin against triple-negative breast cancer cell lines.<sup>3</sup> Avutometinib also displayed efficacy in combination with the FAK inhibitor Defactinib in KRAS-mutated NSCLC cells.<sup>4</sup>

- 1) Ishii *et al.* (2013), *Enhanced inhibition of ERK signaling by a novel allosteric MEK inhibitor, CH5126766, that suppresses feedback reactivation of RAF activity*; Cancer Res. **73** 4050
- 2) Wada *et al.* (2014) *The Dual RAF/MEK Inhibitor CH5126766/RO5126766 May Be a Potential Therapy for RAS-Mutated Tumor Cells*; PLoS One **9** e113217
- 3) Ono *et al.* (2021), *Novel RAF/MEK inhibitor CH5126766/VS-6766 has efficacy in combination with eribulin for the treatment of triple-negative breast cancer*; Cancer Sci. **112** 4166
- 4) Yoshimura *et al.* (2024), *Epithelial-mesenchymal transition status is a remarkable biomarker for the combination treatment with avutometinib and defactinib in KRAS-mutated non-small cell lung cancer*; Br. J. Cancer **131** 361

### PHYSICAL DATA

Molecular Weight:	471.46
Molecular Formula:	C <sub>21</sub> H <sub>18</sub> FN <sub>5</sub> O <sub>5</sub> S
Purity:	>98%
	NMR: (Conforms)
Solubility:	Soluble in DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20° for up to 1 year from the date of purchase. Store solutions at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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