

Product Name	: Pralsetinib
Synonyms	: Blu667
Cat No.	: M22062
CAS Number	: 2097132-94-8
Molecular Formula	: C ₂₇ H ₃₀ FN ₉ O ₂
Formula Weight	: 533.6
Chemical Name	: —
Description	Pralsetinib (BLU-667) is a highly potent, selective RET inhibitor (IC₅₀s: 0.4, 0.3, 0.4, 0.4, and 0.4 nM for WT RET, RET mutants V804L, V804M, M918T and CCDC6-RET fusion). Pralsetinib demonstrates more than 10-fold increased potency over approved MKIs against oncogenic RET variants and resistance mutants. Pralsetinib demonstrates potent activity (IC₅₀: 0.4 nM) against common oncogenic RET alterations, including RET M918T, an activating mutation found in MTC, as well as the CCDC6-RET fusion observed in PTC and NSCLC. Pralsetinib suppresses RET pathway signaling in a panel of RET-driven cell lines: LC2/ad (CCDC6-RET, NSCLC), MZ-CRC-1 (RET M918T, MTC), and TT (RET C634W, MTC). Pralsetinib potently inhibits the growth of NSCLC and thyroid cancer xenografts driven by various RET mutations and fusions without inhibiting VEGFR-2. Pralsetinib shows dose-dependent activity against both KIF5B-RET Ba/F3 and KIF5B-RET V804L Ba/F3 allograft tumors with doses as low as 10 mg/kg twice daily.
Pathway	: Tyrosine Kinase
Target	: c-RET
Receptor	: RET
Solubility	: DMSO:95 mg/mL (178.04 mM)
SMILES	: <chem>COC1(CCC(CC1)C1=NC(C)=CC(NC2=NNC(C)=C2)=N1)C(=O)N[C@@H](C)C1=CN=C(C=C1)N1C=C(F)C=N1</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1. Subbiah V, et al. Precision Targeted Therapy With BLU-667 for RET-Driven Cancers. American Association for Cancer Research. 10.1158/2159-8290.CD-18-0338.