**PRODUCT INFORMATION**

**XL228**  
*Item No. 21506*

**CAS Registry No.:** 898280-07-4  
**Formal Name:** N^4^-[(5-cyclopropyl-1H-pyrazol-3-yl)-N^2^-][3-(1-methylethyl)-5-isoxazolylmethyl]-6-(4-methyl-1-piperazinyl)-2,4-pyrimidinediamine  
**MF:** C_{22}H_{31}N_9O  
**FW:** 437.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 236, 291 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

### Laboratory Procedures

XL228 is supplied as a crystalline solid. A stock solution may be made by dissolving the XL228 in the solvent of choice. XL228 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of XL228 in ethanol is approximately 16.67 mg/ml and approximately 30 mg/ml in DMSO and DMF.

XL228 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, XL228 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. XL228 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

XL228 potently inhibits the tyrosine kinases IGF1R (IC<sub>50</sub> = 1.6 nM) and FGFR1-3 (IC<sub>50</sub> < 100 nM), which promote tumor growth, and SRC (IC<sub>50</sub> = 6.1 nM), which mediates metastasis.¹ ² It also inhibits the non-receptor tyrosine kinases BCR-ABL (IC<sub>50</sub> = 1.4 nM) and Aurora A (IC<sub>50</sub> = 3.1 nM), associated with chronic myelogenous leukemia. XL228 showed promising preliminary results in a Phase 1 clinical trial for patients with chronic myelogenous leukemia or Philadelphia-chromosome-positive acute lymphocytic leukemia but the trial was terminated early.²

### References
