PF-06447475
Item No. 18375

CAS Registry No.: 1527473-33-1
Formal Name: 3-[4-(4-morpholinyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-benzonitrile
MF: C{\text{17}}H{\text{15}}N{\text{5}}O
FW: 305.3
Purity: ≥98%

UV/Vis.: \( \lambda_{\text{max}} \): 224, 294 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

PF-06447475 is supplied as a crystalline solid. A stock solution may be made by dissolving the PF-06447475 in the solvent of choice, which should be purged with an inert gas. PF-06447475 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of PF-06447475 in these solvents is approximately 2 and 5 mg/ml, respectively.

PF-06447475 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PF-06447475 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PF-06447475 has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

PF-06447475 is an inhibitor of leucine-rich repeat kinase 2 (LRRK2; \( IC_{50} = 3 \) nM), an enzyme genetically linked to Parkinson's disease that interacts with parkin, a ligase whose loss of function leads to dopaminergic cell death.\(^1\) PF-06447475 has been shown to attenuate \( \alpha \)-synuclein-induced dopaminergic neurodegeneration and neuroinflammation in G2019S-LRRK2-expressing rats.\(^2\)

References