# Product Specification Sheet

**Product Name:** PF-562271  
**Catalog Number:** C7562

## Technical information:

- **Chemical Formula:** C_{21}H_{20}F_{3}N_{7}O_{3}S  
- **CAS:** 717907-75-0  
- **Molecular Weight:** 507.49  
- **Purity:** > 98%  
- **Appearance:** White solid  
- **Solubility:** Soluble in DMSO up to 100 mM  
- **Storage:** Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.  
- **Shelf Life:** In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

## Handling:

- To make 10 mM stock solution, add 0.197mL of DMSO for each mg of PF-562271.  
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

## Biological Activity:

PF-562271 is a reversible, ATP-competitive inhibitor of focal adhesion kinase (FAK) and Pyk2 with an IC50 of 1.5 and 14 nM, respectively. [1] In an inducible cell-based assay measuring phospho-FAK, it robustly inhibits at an IC50 of 5 nM. In vivo, PF-562271 inhibits FAK phosphorylation in a dose-dependent fashion at an EC50 of 93 ng/mL.

PF-562271 has been evaluated as a potential therapy for pancreatic ductal adenocarcinoma [2] and for cancer patients with bone metastases and cancer-associated osteoporosis. [3]

PF-562271 has been studied in combination with gemcitabine in pancreatic cancers, and sunitinib in hepatocellular carcinomas. [4] In the sunitinib / PF-562271 combination studies, both angiogenesis and tumor proliferation were addressed, posing a formidable approach to treating solid tumors of the liver.

## Reference:

2. Stokes et al., Inhibition of focal adhesion kinase by PF-562,271 inhibits the growth and metastasis of pancreatic cancer concomitant with altering the tumor microenvironment. Mol. Cancer Ther. 2011, 10, 2135-2145. Pubmed ID: 21903606  

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