

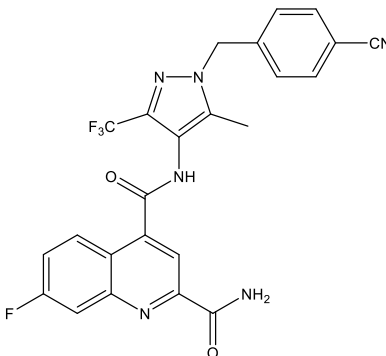
**Catalog # 10-4708**

**BAY-876**

CAS# 1799753-84-6

N<sup>4</sup>-[1-(4-Cyanobenzyl)-5-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]-7-fluoroquinoline-2,4-dicarboxamide;  
4-N-[1-[(4-Cyanophenyl)methyl]-5-methyl-3-(trifluoromethyl)pyrazol-4-yl]-7-fluoroquinoline-2,4-dicarboxamide

Lot # FBS3054



BAY-876 is a potent inhibitor (IC<sub>50</sub> = 2 nM) of the facilitative glucose transporter GLUT1, an enzyme frequently overexpressed in many cancers.<sup>1</sup> It shows greater than 100-fold selectivity over GLUT2-4. BAY-876 displayed potent antitumor activity in ovarian cancer xenograft models<sup>2</sup> and in triple negative breast cancer cells displaying high glycolytic and low oxidative phosphorylation rates<sup>3</sup>. It reduced CD4<sup>+</sup> T cell proliferation and IFN- $\gamma$  secretion via GLUT1 inhibition suggesting utility against auto-inflammatory diseases.<sup>4</sup> BAY-876 induces disulfidptosis in SLCA11<sup>high</sup> cancer cells.<sup>5</sup>

- 1) Siebeneicher *et al.* (2016), *Identification and Optimization of the First Highly Selective GLUT1 Inhibitor BAY-876*; ChemMedChem., **11** 2261
- 2) Ma *et al.* (2018), *Ovarian Cancer Relies on Glucose Transporter 1 to Fuel Glycolysis and Growth: Anti-Tumor Activity of BAY-876*; Cancers (Basel), **11** 33
- 3) Wu *et al.* (2020) *GLUT1 inhibition blocks growth of RB1-positive triple negative breast cancer*; Nat. Commun. **11** 4205
- 4) Chen *et al.* (2023), *Characterization of the effect of the GLUT-1 inhibitor BAY-876 on T cells and macrophages*; Eur. J. Pharmacol., **945** 175552
- 5) Liu *et al.* (2023), *Actin cytoskeleton vulnerability to disulfide stress mediates disulfidptosis*; Nat. Chem. Biol., **25** 404

**PHYSICAL DATA**

Molecular Weight:	496.43
Molecular Formula:	C <sub>24</sub> H <sub>16</sub> F <sub>4</sub> N <sub>6</sub> O <sub>2</sub>
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in water may be stored at -20°C for up to 3 months.

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