A novel inhibitor of glucose uptake which acts via inhibition of the glucose transporter GluT1 and GluT4 (IC₅₀=68 μM). Inhibition of glucose uptake is cell type specific and is a promising approach to new cancer therapeutics. Rescues cardiac progenitor cell dysfunction and mitochondrial fission induced by high glucose. Sensitizes cells to FAS-induced cell death.

1) Granchi et al. (2016), Anticancer agents interacting with membrane glucose transporters; Med. Chem. Comm., 7 1716
2) Kraus et al. (2018), Targeting glucose transport and the NAD pathway in tumor cells with STF-31: a re-evaluation; Cell. Oncol. (Dordr), 41 485
3) Adekola et al. (2012), Glucose transporters in cancer metabolism; Curr. Opin. Oncol., 24 650
4) Choi et al. (2016), High Glucose Causes Human Cardiac Progenitor Cell Dysfunction by Promoting Mitochondrial Fission: Role of a GLUT1 Blocker; Prog. Biomol. Ther. (Seoul), 24 363
5) Schimmer et al. (2006), Identification of small molecules that sensitize resistant tumor cells to tumor necrosis factor-family death receptors; Cancer Res., 66 2367
6) Wood et al. (2008), A novel inhibitor of glucose uptake sensitizes cells to FAS-induced cell death; Mol. Cancer Ther., 7 3546

**PHYSICAL DATA**

Molecular Weight: 279.64
Molecular Formula: C₁₁H₉ClF₃NO₂
Purity: 98% by TLC
NMR: (Conforms)
Solubility: DMSO (up to 28 mg/ml)
Physical Description: Off-white solid
Storage and Stability: Store as supplied desiccated at room temperature for up to 2 years from the date of purchase. Solutions in DMSO 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.*