

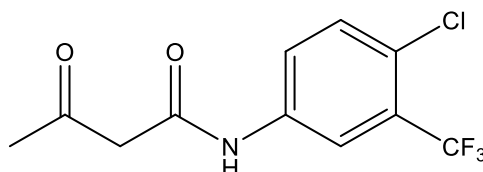
**Catalog # 10-3730**

**Fasentin**

CAS# 392721-37-8

N-[4-Chloro-3-(trifluoromethyl)phenyl]-3-oxobutanamide

Lot # X109521



A novel inhibitor of glucose uptake which acts via inhibition of the glucose transporter GluT1 and GluT4 ( $IC_{50}=68 \mu M$ ).<sup>1</sup> Inhibition of glucose uptake is cell type specific<sup>2</sup> and is a promising approach to new cancer therapeutics<sup>3</sup>. Rescues cardiac progenitor cell dysfunction and mitochondrial fission induced by high glucose.<sup>4</sup> Sensitizes cells to FAS-induced cell death.<sup>5,6</sup>

- 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:	C <sub>11</sub> H <sub>9</sub> ClF <sub>3</sub> NO <sub>2</sub>
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.**