

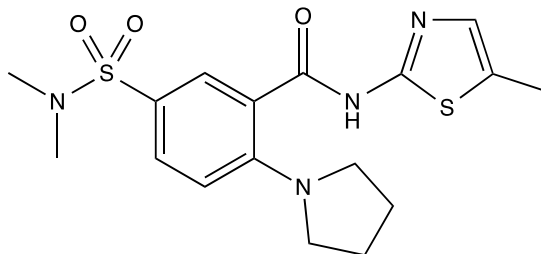
**Catalog # 10-4291**

**NGI-1**

CAS# 790702-57-7

5-(Dimethylsulfamoyl)-N-(5-methyl-1,3-thiazol-2-yl)-2-(pyrrolidin-1-yl)benzamide; ML414

Lot # FBS2012



NGI-1 is a cell-permeable inhibitor of oligosaccharyltransferase (OST) –  $IC_{50} = 1.1 \mu M$ .<sup>1</sup> It blocks cell-surface localization and signaling of the epidermal growth factor receptor (EGFR) glycoprotein and selectively arrests proliferation only in cells dependent on EGFR for survival. NGI-1 caused G1 arrest and senescence in RTK-dependent NSCLC cells (PC9, HCC827, H3255, H1581). NGI-1 displays antiviral behavior against various flaviviruses (Dengue, West Nile, Yellow fever and Zika).<sup>2</sup> It also was able to overcome resistance to EGFR tyrosine kinase inhibitors in mutant NSCLC cells<sup>3</sup> and enhance radiosensitivity and cytotoxic effects of chemotherapy in glioma cells with high levels of RTK activation<sup>4</sup>.

- 1) Lopez-Sambrooks *et al.* (2016), *Oligosaccharyltransferase inhibition induces senescence in RTK-driven tumor cells*; Nature Chem.Biol. **12** 1023
- 2) Puschnik *et al.* (2017), *A small molecule oligosaccharyltransferase inhibitor with pan-flaviviral activity*; Cell Rep. **21** 3032
- 3) Lopez-Sambrooks *et al.* (2018), *Oligosaccharyltransferase Inhibition Overcomes Therapeutic Resistance to EGFR Tyrosine Kinase Inhibitors*; Cancer Res. July 19, 2018 Epub ahead of print
- 4) Baro *et al.* (2018), *Oligosaccharyltransferase Inhibition Reduces Receptor Tyrosine Kinase Activation and Enhances Glioma Radiosensitivity*; Clin. Cancer Res. July 2, 2018 Epub ahead of print

**PHYSICAL DATA**

Molecular Weight:	394.51
Molecular Formula:	C <sub>17</sub> H <sub>22</sub> N <sub>4</sub> O <sub>3</sub> S <sub>2</sub>
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (5 mg/mL)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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