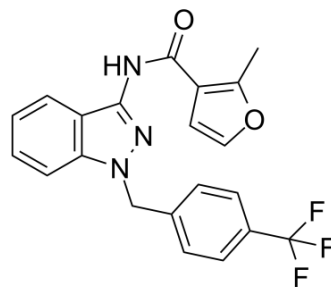


## NP-G2-044

<b>Cat. No.:</b>	HY-125506		
<b>CAS No.:</b>	1807454-59-6		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>16</sub> F <sub>3</sub> N <sub>3</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	399.37		
<b>Target:</b>	Others		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (250.39 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.5039 mL	12.5197 mL	25.0394 mL
		5 mM	0.5008 mL	2.5039 mL	5.0079 mL
10 mM		0.2504 mL	1.2520 mL	2.5039 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<p>1. Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (6.26 mM); Clear solution</p> <p>2. Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (6.26 mM); Clear solution</p>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	NP-G2-044 is a potent, orally active fascin inhibitor, with an IC <sub>50</sub> of ~2 μM. NP-G2-044 blocks tumor metastasis and increases antitumor immune response <sup>[1][2]</sup> .
<b>In Vitro</b>	NP-G2-044 inhibits the migration of MDA-MB-231 tumor cells with an IC <sub>50</sub> ~10 μM. NP-G2-044 decreases filopodial formation resulting in decreased lamellipodial formation <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	NP-G2-044 (100 mg/kg; i.p.; daily for 18 days) inhibits breast tumor metastasis in mouse models <sup>[1]</sup> . Upon oral administration, NP-G2-044 targets and binds to fascin, thereby preventing the interaction of fascin with actin filaments, thereby preventing actin bundling and filopodia formation. By preventing actin cytoskeletal reorganization, the

dynamic changes in cell shape that are necessary for tumor cell migration and invasion to occur are impaired, and tumor cell migration and metastasis are inhibited<sup>[3]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	6-8 week old female BALB/c mice (mouse model bearing 4T1 tumor cells) <sup>[1]</sup>
Dosage:	100 mg/kg
Administration:	I.p.; daily for 18 days
Result:	Inhibition of 4T1 mouse mammary tumor cell metastasis to the lung.

## REFERENCES

- [1]. Han S, et al. Improving fascin inhibitors to block tumor cell migration and metastasis. *Mol Oncol*. 2016;10(7):966-980.
- [2]. Vincent Chung, et al. Abstract C053: NP-G2-044, a novel fascin inhibitor, blocks tumor metastasis and increases antitumor immune response.
- [3]. Fascin Inhibitor NP-G2-044.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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