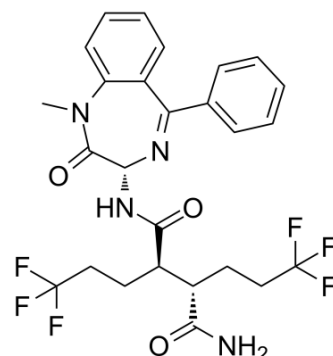


## BMS-906024

<b>Cat. No.:</b>	HY-15670		
<b>CAS No.:</b>	1401066-79-2		
<b>Molecular Formula:</b>	C <sub>26</sub> H <sub>26</sub> F <sub>6</sub> N <sub>4</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	556.5		
<b>Target:</b>	γ-secretase; Notch		
<b>Pathway:</b>	Neuronal Signaling; Stem Cell/Wnt		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 260 mg/mL (467.21 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.7969 mL	8.9847 mL	17.9695 mL
5 mM	0.3594 mL	1.7969 mL	3.5939 mL
10 mM	0.1797 mL	0.8985 mL	1.7969 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

BMS-906024 is an orally active and selective γ-secretase (gamma secretase) inhibitor. BMS-906024 is a potent pan-Notch receptors inhibitor with IC<sub>50</sub>s of 1.6 nM, 0.7 nM, 3.4 nM, and 2.9 nM for Notch1, -2, -3, and -4 receptors, respectively. BMS-906024 demonstrates broad-spectrum antineoplastic activity<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 1.6 nM (Notch1), 0.7 nM (Notch2), 3.4 nM (Notch3) and 2.9 nM (Notch4)<sup>[2]</sup>

#### In Vitro

BMS-906024 (5-100 nM; 72 hours) reduces Notch1 ICD levels in all six lung cancer cell lines. BMS-906024 at 100 nM, has no effect on total Notch1, and down-regulated Hes1 transcript<sup>[1]</sup>.  
 In cancer cell proliferation assays, BMS-906024 inhibits both leukemia (TALL-1) and triple-negative breast cancer (MDA-MB-468) cells with IC<sub>50</sub> of -4 nM<sup>[2]</sup>.  
 BMS-906024 (100 nM; for 72 hours) enhances the anti-tumor activity of Paclitaxel in vitro<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.  
 Western Blot Analysis<sup>[1]</sup>

Cell Line:	NSCLC cell lines (A549, H358, H1975, H2444, H1792, HCC44)
Concentration:	5, 10, 25, 50, 100 nM
Incubation Time:	72 hours
Result:	Reduced Notch1 ICD levels in all six lung cancer cell lines tested at concentrations as low as 5 nM, with maximal depletion at 50-100 nM.

#### In Vivo

BMS-906024 (8.5 mg/kg; oral gavage; days 1 through 4 of each week for 3 weeks) significantly enhances the tumor growth inhibition of Paclitaxel (36 mg/kg). BMS-906024 enhances Paclitaxel-mediated cytotoxicity in vivo in NSCLC through a combination of inhibiting proliferation and promoting apoptosis, in a p21 and p57-independent manner<sup>[1]</sup>. BMS-906024 has a  $T_{1/2}$  of 4.6/5.3 hours, a  $C_{max}$  of 1/0.3  $\mu$ M and an AUC of 3.4/1.9  $\mu$ M•hour for IV/PO<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Six to 12-week-old female NOD scid gamma (NSG) mice with KRAS- and BRAF-WT PDX-T42 xenografts <sup>[1]</sup>
Dosage:	8.5 mg/kg
Administration:	oral gavage; days 1 through 4 of each week for 3 weeks
Result:	Significantly enhanced the tumor growth inhibition of Paclitaxel (36 mg/kg), but had no significant effect on Cisplatin (2 mg/kg) treatment.
Animal Model:	Mouse <sup>[2]</sup>
Dosage:	1 mg/kg (Pharmacokinetic Analysis)
Administration:	IV or PO
Result:	Had a $T_{1/2}$ of 4.6/5.3 hours, a $C_{max}$ of 1/0.3 $\mu$ M and an AUC of 3.4/1.9 $\mu$ M•hour for IV/PO.

## REFERENCES

- [1]. Morgan KM, et al. Gamma Secretase Inhibition by BMS-906024 Enhances Efficacy of Paclitaxel in Lung Adenocarcinoma. *Mol Cancer Ther.* 2017 Dec;16(12):2759-2769.
- [2]. Gavai AV, et al. Discovery of Clinical Candidate BMS-906024: A Potent Pan-Notch Inhibitor for the Treatment of Leukemia and Solid Tumors. *ACS Med Chem Lett.* 2015 Mar 11;6(5):523-7.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA