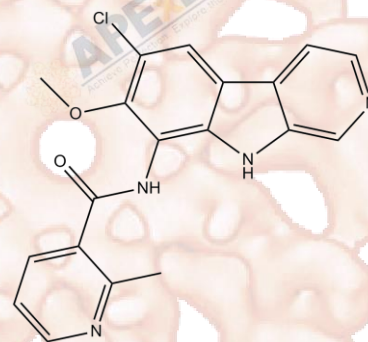


# Product Data Sheet

## MLN120B

<b>Cat. No.:</b>	A3628
<b>CAS No.:</b>	783348-36-7
<b>Formula:</b>	C <sub>19</sub> H <sub>15</sub> ClN <sub>4</sub> O <sub>2</sub>
<b>M.Wt:</b>	366.8
<b>Synonyms:</b>	ML120B;MLN 120B;MLN-120B
<b>Target:</b>	Immunology/Inflammation
<b>Pathway:</b>	IκB/IKK
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

insoluble in H<sub>2</sub>O; ≥13.2 mg/mL in DMSO; ≥8.53 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.7263 mL	13.6314 mL	27.2628 mL
	<b>5 mM</b>	0.5453 mL	2.7263 mL	5.4526 mL
	<b>10 mM</b>	0.2726 mL	1.3631 mL	2.7263 mL

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

## Biological Activity

Shortsummary

IκB Kinase β Inhibitor

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

Cell Line:	RPMI 8226 and U266 human multiple myeloma cells
Preparation method:	The solubility of this compound in DMSO is >13.2mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	1.25-20μmol/L for 90 minutes

	Applications:	In RPMI 8226 and U266 human multiple myeloma cells, TNF- $\alpha$ (tumor necrosis factor- $\alpha$ )-induced phosphorylation and degradation of I $\kappa$ B $\alpha$ were completely abrogated by MLN120B in a dose dependent fashion. Phosphorylation of p65 NF- $\kappa$ B (Nuclear factor- $\kappa$ B) induced by TNF- $\alpha$ was also blocked by MLN120B. Importantly, MLN120B inhibited both IL-6 secretion from BMSCs (bone marrow stromal cells) triggered by multiple myeloma cell adhesion and proliferation of multiple myeloma cells adherent to BMSCs. MLN120B triggered 25% to 90% growth inhibition in a dose-dependent fashion in multiple myeloma cell lines, which is not overcome by growth and antiapoptotic factors (IL-6 or IGF-I).
In Vivo	<b>Animal experiment</b>	
	Animal models:	Rat adjuvant-induced arthritis model (Two-month-old female Lewis rats)
	Dosage form:	orally as a suspension delivered via a gavage needle, at 30 mg/kg, 10 mg/kg, 3 mg/kg
	Applications:	In Lewis rats, Animals receiving MLN120B showed a dose-dependent reduction of arthritis development, as measured by paw swelling, compared with vehicle-treated controls. Administration of MLN120B at a dosage of 30 mg/kg twice daily offered significant protection against weight loss compared with arthritic controls. These results indicated bone and cartilage destruction and pannus development were the features most improved with MLN120B administration.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.	

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Hideshima T, Neri P, Tassone P. MLN120B., et al. a novel I $\kappa$ beta kinase beta inhibitor, blocks multiple myeloma cell growth in vitro and in vivo. Clin Cancer Res. 2006, 12(19): 5887-5894.
- [2]. Schopf L, Savinainen A, Anderson K., et al. IKKbeta inhibition protects against bone and cartilage destruction in a rat model of rheumatoid arthritis. Arthritis Rheum. 2006, 54(10): 3163-3173.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

**APExBIO Technology**

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