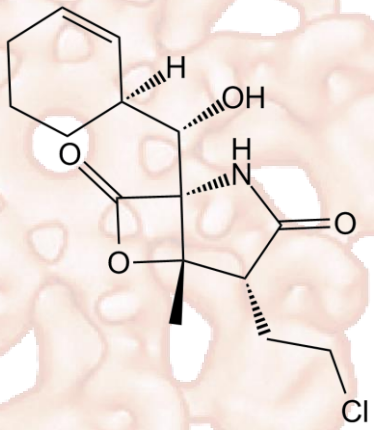
Product Data Sheet

Salinosporamide A (NPI-0052, Marizomib)



Cat. No.: A4010

CAS No.: 437742-34-2

Formula: C15H20ClNO4

M.Wt: 313.78

Synonyms: salinosporamide A, MARIZOMIB, NPI-0052, (-)-Salinosporamide A

Target: Ubiquitination/ Proteasome

Pathway: Proteasome

Storage: Store at -20°C

Solvent & Solubility

In Vitro

Soluble in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	3.1869 mL	15.9347 mL	31.8695 mL
5 mM	0.6374 mL	3.1869 mL	6.3739 mL
10 mM	0.3187 mL	1.5935 mL	3.1869 mL

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

Biological Activity

Shortsummary	20S proteasome inhibitor
IC_{50} & Target	3.5 nM (CT-L (EC50）), 430 nM (C-L (EC50）), 28 nM (T-L (EC50）)

In Vitro

Cell Viability Assay

Cell Line:	Human MM-cell lines (MM.1S, INA-6, RPMI-8226, MM.1R,KMS12PE, and U266)
Preparation method：	The solubility of this compound in DMSO is >10 mM. 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:	24 h; 2nM
	Applications:	Human MM-cell lines were pretreated with lenalidomide for 24 hours; NPI-0052 was then added for an additional 24 hours, followed by assessment for cell viability using MTT assays. A significant decrease in viability of all cell lines was observed in response to treatment with combined low doses of NPI-0052 and lenalidomide compared with either agent alone(P＜0.05; n=3). These data demonstrate synergistic anti-MM activity of NPI-0052 plus lenalidomide.
In Vivo	**Animal experiment**	
	Animal models:	CB-17 SCID-male mice
	Dosage form:	0.15 mg/kg; i.v.
	Applications:	MM.1S-tumour bearing mice were injected with NPI-0052(0.15 mg/kg; i.v.) twice a week for 3 weeks, and tumour volume was measured. NPI-0052 treatment significantly decreased tumour growth relative to vehicle-treated control mice (P =0.005). NPI-0052 treatment was not associated with any toxicity, because no differences in body weight and overall appearance were noted. Importantly, the anti-MM activity of NPI-0052 was evident as early as day 5–7, when significant proteasome inhibition was observed in the tumours.
	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.

References

[1] Chauhan D, Singh A V, Ciccarelli B, et al. Combination of novel proteasome inhibitor NPI-0052 and lenalidomide trigger in vitro and in vivo synergistic cytotoxicity in multiple myeloma[J]. Blood, 2010, 115(4): 834-845.

[2] Singh A V, Palladino M A, Lloyd G K, et al. Pharmacodynamic and efficacy studies of the novel proteasome inhibitor NPI‐0052 (marizomib) in a human plasmacytoma xenograft murine model[J]. British journal of haematology, 2010, 149(4): 550-559.

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.

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