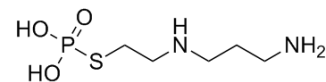


## Amifostine

<b>Cat. No.:</b>	HY-B0639		
<b>CAS No.:</b>	20537-88-6		
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>15</sub> N <sub>2</sub> O <sub>3</sub> PS		
<b>Molecular Weight:</b>	214.22		
<b>Target:</b>	MDM-2/p53; HIF/HIF Prolyl-Hydroxylase		
<b>Pathway:</b>	Apoptosis; Metabolic Enzyme/Protease		
<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

H<sub>2</sub>O : 100 mg/mL (466.81 mM; Need ultrasonic)  
 DMF : 1 mg/mL (4.67 mM; Need ultrasonic)  
 DMSO : < 1 mg/mL (ultrasonic) (insoluble or slightly soluble)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		Preparing Stock Solutions	1 mM	5 mM	10 mM
	1 mM	4.6681 mL	23.3405 mL	46.6810 mL	
	5 mM	0.9336 mL	4.6681 mL	9.3362 mL	
	10 mM	0.4668 mL	2.3340 mL	4.6681 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

Amifostine (WR2721) is a broad-spectrum cytoprotective agent and a radioprotector. Amifostine selectively protects normal tissues from damage caused by radiation and chemotherapy. Amifostine is potent hypoxia-inducible factor- $\alpha$ 1 (HIF- $\alpha$ 1) and p53 inducer. Amifostine protects cells from damage by scavenging oxygen-derived free radicals. Amifostine reduces renal toxicity and has antiangiogenic action<sup>[1][2][3][4]</sup>.

### CUSTOMER VALIDATION

- Int Immunopharmacol. 2020 Nov;88:106998.

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

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## REFERENCES

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- [2]. D Maurici, et al. Amifostine (WR2721) restores transcriptional activity of specific p53 mutant proteins in a yeast functional assay. *Oncogene*. 2001 Jun 14;20(27):3533-40.
- [3]. Efstathia Giannopoulou, et al. Amifostine inhibits angiogenesis in vivo. *J Pharmacol Exp Ther*. 2003 Feb;304(2):729-37.
- [4]. Michael I Koukourakis, et al. Amifostine induces anaerobic metabolism and hypoxia-inducible factor 1 alpha. *Cancer Chemother Pharmacol*. 2004 Jan;53(1):8-14.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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