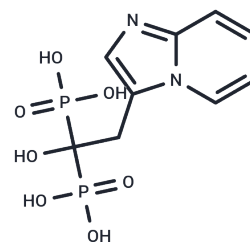


## Minodronic acid

## Chemical Properties

CAS No. :	180064-38-4
Formula:	C <sub>9</sub> H <sub>12</sub> N <sub>2</sub> O <sub>7</sub> P <sub>2</sub>
Molecular Weight:	322.15
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Minodronic acid(YM-529) is a P2X <sub>2/3</sub> receptor antagonist with anticancer activity, directly or indirectly inhibiting the proliferation of cancer cells and inducing apoptosis. Minodronic acid has been shown to inhibit the metastasis of various types of cancer cells. Minodronic-acid has been used in the study of osteoporosis.
Targets(IC50)	Apoptosis, P2X Receptor

## Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble) H <sub>2</sub> O: 4 mg/mL (12.42 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1041 mL	15.5207 mL	31.0414 mL
5 mM	0.6208 mL	3.1041 mL	6.2083 mL
10 mM	0.3104 mL	1.5521 mL	3.1041 mL
50 mM	0.0621 mL	0.3104 mL	0.6208 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

- Sato K, et al. A third-generation bisphosphonate, minodronic acid (YM529), successfully prevented the growth of bladder cancer in vitro and in vivo. *Br J Cancer*. 2006 Nov 20;95(10):1354-61.
- Tanaka M, et al. Minodronic acid induces morphological changes in osteoclasts at bone resorption sites and reaches a level required for antagonism of purinergic P2X<sub>2/3</sub> receptors. *J Bone Miner Metab*. 2018 Jan;36(1):54-63.

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