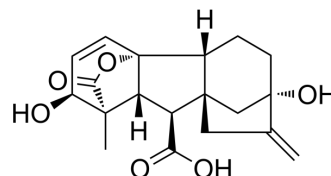


Gibberellic acid

Cat. No.:	HY-N1964
CAS No.:	77-06-5
Molecular Formula:	C ₁₉ H ₂₂ O ₆
Molecular Weight:	346.37
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (288.71 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8871 mL	14.4354 mL	28.8709 mL
		5 mM	0.5774 mL	2.8871 mL	5.7742 mL
		10 mM	0.2887 mL	1.4435 mL	2.8871 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (6.01 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.01 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (6.01 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Gibberellic Acid is named after the fungus <i>Gibberella fujikuroi</i> . Gibberellic Acid regulates processes in plant development and growth, including seed development and germination, stem and root growth, cell division, and flowering time. Gibberellic Acid also improves plant response to growth stress caused by various environmental stresses, such as cold stress, drought stress, heavy metal stress, etc. Gibberellic Acid also causes increased lipid peroxidation and fluctuations in the antioxidant defense system in rats ^{[1][2][3][4]} .
In Vitro	Gibberellic acid rescues chickpea seedlings from cold stress. Gibberellic acid (10-20 μM) increases final emergence probability (FEP), helping seeds maintain higher relative water content and lower electrolyte leakage ^[2] . Gibberellic acid (0.025 μM) treatment of <i>Echinacea purpurea</i> L. hairy roots increased PAL activity, cell viability, and free

radical scavenging activity in hairy root cultures. Gibberellic acid optimizes the production of secondary metabolites in *Echinacea purpurea* L. hairy root cultures and is beneficial to the growth of hairy roots^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Rats were exposed to 75 ppm ABA and GA3 ad libitum for 25 days as drinking water, the PGRs intake amount of each rat was about 2.2 mg/day^[5].
Gibberellic acid (2.2 mg/rats/day; po) can promote the content of lipid peroxidin and change the antioxidant system in various tissues of rats^[5].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Res. 2024 Jan;34(1):31-46.

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REFERENCES

- [1]. Kwon CT, et al. Gibberellic Acid: A Key Phytohormone for Spikelet Fertility in Rice Grain Production. *Int J Mol Sci.* 2016 May 23;17(5).
- [2]. Aziz T, et al. Seed priming with gibberellic acid rescues chickpea (*Cicer arietinum* L.) from chilling stress[J]. *Acta Physiologiae Plantarum*, 2020, 42: 1-10.
- [3]. Celik I, et al. Abscisic acid and gibberellic acid cause increased lipid peroxidation and fluctuated antioxidant defense systems of various tissues in rats. *J Hazard Mater.* 2007 Sep 30;148(3):623-9.
- [4]. Abbasi BH, et al. Gibberellic acid increases secondary metabolite production in *Echinacea purpurea* hairy roots. *Appl Biochem Biotechnol.* 2012 Dec;168(7):2057-66.

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

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