

Quisqualic acid

Chemical Properties

CAS No. : 52809-07-1

Formula: C₅H₇N₃O₅

Molecular Weight: 189.13

Storage: Keep away from direct sunlight, Keep away from moisture, Store at low temperature
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	Quisqualic acid is an agonist of the AMPA, kainate, and group I metabotropic glutamate receptors. Quisqualic acid is among the most potent AMPA receptor agonists currently characterized. Quisqualic acid induces excitotoxicity and is widely utilized in neuroscience research to selectively destroy neurons in the brain or spinal cord. Quisqualic acid occurs naturally in the seeds of Quisqualis species. Quisqualic acid is particularly valuable for investigations involving glutamatergic neurotransmission, receptor pharmacology, excitotoxic neuronal injury, and neural circuit mapping.
Targets(IC ₅₀)	GluR
In vitro	Quisqualic acid activates mGlu1R (EC ₅₀ =0.045 μM; K _i =0.01 μM) and mGlu2R (EC ₅₀ =108 μM; K _i =113 μM)[1].

Solubility Information

Solubility	DMSO: 10 mg/mL (52.87 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	5.2874 mL	26.4368 mL	52.8737 mL
5 mM	1.0575 mL	5.2874 mL	10.5747 mL
10 mM	0.5287 mL	2.6437 mL	5.2874 mL
50 mM	0.1057 mL	0.5287 mL	1.0575 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

Bertrand H O, et al. Common and selective molecular determinants involved in metabotropic glutamate receptor agonist activity[J]. Journal of medicinal chemistry, 2002, 45(15): 3171-3183.

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