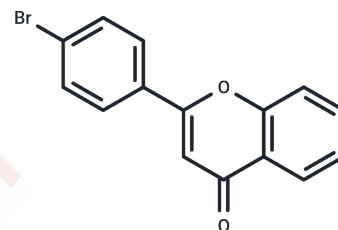


4'-Bromoflavone

Chemical Properties

CAS No. :	20525-20-6
Formula:	C ₁₅ H ₉ BrO ₂
Molecular Weight:	301.14
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	4'-Bromoflavone is a flavonoid derivative that acts as a chemopreventive agent against cancer and is an effective inducer of phase II detoxification enzymes.
Targets(IC50)	Others
In vitro	4'-Bromoflavone significantly increases quinone reductase (QR) activity in murine hepatoma 1c1c7 cells at low concentrations (10 nM required for doubling activity) and enhances the α - and mu-isoforms of glutathione S-transferase in H4IIE rat hepatoma cells, without toxicity[1]. Additionally, it serves as a strong inhibitor of cytochrome P4501A1-mediated ethoxyresorufin-O-deethylase activity, exhibiting an inhibition concentration (IC50) of 0.86 μ M. Importantly, in HepG2 or MCF-7 cells, 4'-Bromoflavone notably reduces the binding of activated benzo[a]pyrene to DNA[1], indicating its potential protective role against certain chemical-induced damages.
In vivo	In short-term dietary studies, 4'-Bromoflavone is shown to increase QR activity and glutathione levels in rat liver, mammary gland, colon, stomach, and lung in a dose-dependent manner. In studies with female Sprague Dawley rats, 4'-Bromoflavone significantly increases QR activity (phase II enzyme)[1]. In DMBA-treated female Sprague Dawley rats, dietary administration of 4'-Bromoflavone (2000 and 4000 mg/kg of diet, from 1 week before to 1 week after DMBA) significantly inhibits the incidence and multiplicity of mammary tumors and greatly increases tumor latency[1].

Solubility Information

Solubility	DMSO: 10 mg/mL (33.21 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	3.3207 mL	16.6036 mL	33.2071 mL
5 mM	0.6641 mL	3.3207 mL	6.6414 mL
10 mM	0.3321 mL	1.6604 mL	3.3207 mL
50 mM	0.0664 mL	0.3321 mL	0.6641 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

L L Song, et al. Cancer chemopreventive activity mediated by 4'-bromoflavone, a potent inducer of phase II detoxification enzymes. *Cancer Res.* 1999 Feb 1;59(3):578-85.

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