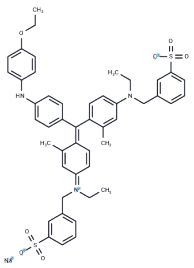
Data Sheet (Cat.No.T20731)

TargetMol

Brilliant blue G-250

Chemical Properties



CAS No. : 6104-58-1

Formula: C47H48N3NaO7S2

Molecular Weight: 854.02

Storage: Keep away from direct sunlight
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	Brilliant blue G-250 (Acid blue 90, Coomassie Brilliant Blue G) is an antagonist of the P2X7 purinergic receptor.
Targets(IC50)	P2X Receptor
In vitro	Brilliant Blue G-250 is used for protein staining after polyacrylamide gel electrophoresis Instructions 1. The protein electrophoresis gel is fixed in 50% methanol, 10% acetic acid, and 40% aqueous solution, and shaken at a low speed on a horizontal shaker for 30 min to overnight. 2. Remove the fixative and replace with 0.25% Coomassie Brilliant Blue R250 staining solution (0.25% R250 dissolved in 50% methanol, 10% acetic acid, and 40% aqueous solution) to completely cover the gel and stain for 2-4 h. Until the gel is stained uniformly blue. Note: When the gel is invisible to the naked eye in the staining solution, it means that the staining is complete, otherwise the gel area looks lighter in color compared to the dark staining solution. 3. Place the gel back in 5% methanol, 7.5% acetic acid, and 87.5% aqueous solution for 4-24 h for decolorization. The protein bands will be visible after about 1-2 hours, and the destaining process will not be completed until the background becomes transparent. The destaining solution can be changed 2-4 times in the middle. 4. Store the gel in 7% acetic acid. It can also be stored in water or dry. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 8.55 mg/mL (10.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 0.5 mg/mL (0.59 mM),Sonication is recommended.

In vivo Formulation	*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1709 mL	5.8547 mL	11.7093 mL
5 mM	0.2342 mL	1.1709 mL	2.3419 mL
10 mM	0.1171 mL	0.5855 mL	1.1709 mL
50 mM	0.0234 mL	0.1171 mL	0.2342 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

Xie Y, et al. P2X7 receptor antagonists modulate experimental autoimmune neuritis via regulation of NLRP3 inflammasome activation and Th17 and Th1 cell differentiation. J Neuroinflammation. 2024 Mar 25;21(1):73.
Azuma K, Noda Y, Hirasawa K, Ueta T. BRILLIANT BLUE G-ASSISTED INTERNAL LIMITING MEMBRANE PEELING FOR MACULAR HOLE: A Systematic Review of Literature and Meta-Analysis. Retina. 2016 May;36(5):851-8. doi: 10.1097/IAE.0000000000000968. Review. PubMed PMID: 27115851.
Fumagalli M, Lecca D, Abbracchio MP. CNS remyelination as a novel reparative approach to neurodegenerative diseases: The roles of purinergic signaling and the P2Y-like receptor GPR17. Neuropharmacology. 2016 May;104:82-93. doi: 10.1016/j.neuropharm.2015.10.005. Epub 2015 Oct 8. Review. PubMed PMID: 26453964.
Burnstock G. An introduction to the roles of purinergic signalling in neurodegeneration, neuroprotection and neuroregeneration. Neuropharmacology. 2016 May;104:4-17. doi: 10.1016/j.neuropharm.2015.05.031. Epub 2015 Jun 6. Review. PubMed PMID: 26056033.