Brilliant Blue G
Item No. 14320

CAS Registry No.: 6104-58-1
Formal Name: N-[4-[[4-(4-ethoxyphenyl)amino]phenyl]-[4-ethyl][3-sulfophenyl]methyl]amino]-2-methylphenyl)methyleno]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfobenzenemethanaminium, sodium salt
Synonyms: Acid Blue 90, CBBG, Coomassie Brilliant Blue G-250, NSC 328382
MF: C_{47}H_{48}N_{3}O_{7}S_{2} \cdot \text{Na}
FW: 854.0
Stability: ≥2 years at room temperature
Supplied as: A crystalline solid
UV/Vis.: λ_{max}^2 202, 260, 309, 609 nm

Laboratory Procedures
For long term storage, we suggest that Brilliant Blue G be stored as supplied at room temperature. It should be stable for at least two years.

Brilliant Blue G is supplied as a crystalline solid. A stock solution may be made by dissolving the Brilliant Blue G in the solvent of choice. Brilliant Blue G is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of Brilliant Blue G in ethanol and DMF is approximately 0.5 mg/ml and approximately 10 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Brilliant Blue G can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Brilliant Blue G in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Brilliant Blue G is a dye which is commonly used in laboratories to stain or quantify proteins. A variety of methods have been developed for using Brilliant Blue G to stain gels with ease and sensitivity.1-4 The Bradford assay is a standard, rapid dye-binding assay that uses Brilliant Blue G to quantify the amount of protein in a solution.5 This compound also acts as a selective inhibitor of the P2X purinoceptor channel P2X7 (IC_{50}s = 10.1 and 265 nM for rat and human P2X7, respectively).6 In mice, it inhibits interleukin-1β expression and reduces neurological injury secondary to traumatic brain injury.7

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/14320

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS, NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to our email to your institution.

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Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.