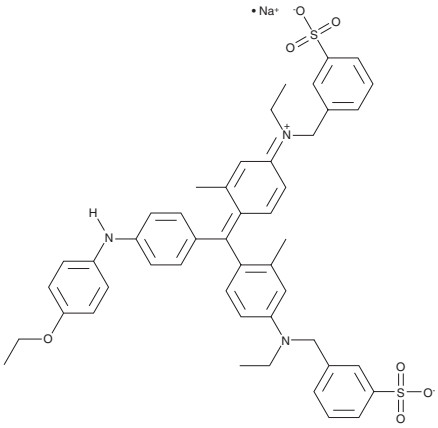
PRODUCT INFORMATION

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]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-benzenemethanaminium, sodium salt
Synonyms: Acid Blue 90, CBBG, Coomassie Brilliant Blue G-250, NSC 328382
MF: $C_{47}H_{48}N_3O_7S_2$ • Na
FW: 854.0
UV/Vis.: λ_{max}: 202, 260, 309, 609 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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, which should be purged with an inert gas. Brilliant blue G is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). 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.

Description

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 $P2X_7$ (IC_{50}s = 10.1 and 265 nM for rat and human $P2X_7$, respectively).[6] In mice, it inhibits interleukin-1β expression and reduces neurological injury secondary to traumatic brain injury.[7]

References

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