

PRODUCT INFORMATION

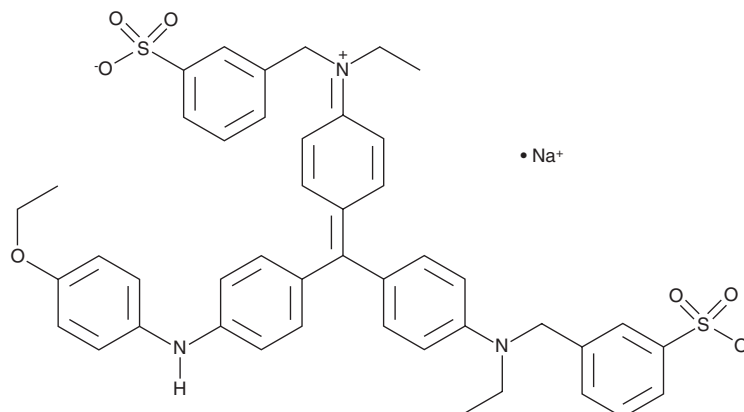


Coomassie Blue R-250

Item No. 14500

CAS Registry No.: 6104-59-2
Formal Name: N-[4-[[4-[(4-ethoxyphenyl)amino]phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfo-benzenemethanaminium, monosodium salt

Synonym: C.I. 42660
MF: $C_{45}H_{44}N_3O_7S_2 \cdot Na$
FW: 826.0
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

Coomassie blue R-250 is supplied as a crystalline solid. A stock solution may be made by dissolving the coomassie blue R-250 in the solvent of choice, which should be purged with an inert gas. Coomassie blue R-250 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of coomassie blue R-250 in these solvents is approximately 0.1, 10, and 2 mg/ml, respectively.

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 coomassie blue R-250 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of coomassie blue R-250 in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Coomassie blue R-250 is a dye that is commonly used in laboratories to stain or quantify proteins. It is a sensitive stain for protein detection in polyacrylamide gels, typically giving blue bands on a clear background with a sensitivity of 50-100 ng/band. It may be combined with other stains, such as silver stain, to distinguish different types of proteins.¹ Coomassie blue R-250 displays metachromasia by appearing pink-red, rather than blue, when binding certain proteins, such as collagen and histone H1.^{23011}

References

1. Dzandu, J.K., Deh, M.E., Barratt, D.L., *et al.* Detection of erythrocyte membrane proteins, sialoglycoproteins, and lipids in the same polyacrylamide gel using a double-staining technique. *Proc. Natl. Acad. Sci. USA* **81**(6), 1733-1737 (1984).
2. Hattori, S., Sakai, K., Watanabe, K., *et al.* The induction of metachromasia and circular dichroism of Coomassie Brilliant Blue R-250 with collagen and histone H1 is due to the low content of hydrophobic amino acid residues in these proteins. *J. Biochem.* **119**(3), 400-406 (1996).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/14/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM