

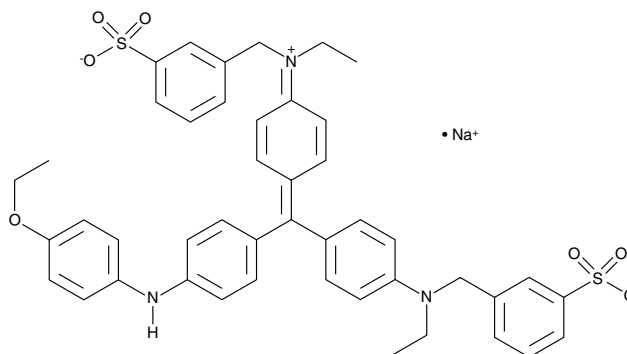
# Product Information



## 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-sulfo-phenyl)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  
**Stability:**  $\geq 2$  years at room temperature  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that coomassie blue R-250 be stored as supplied at room temperature. It should be stable for at least two years.

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. Coomassie blue R-250 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. 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.

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.<sup>1</sup> Coomassie blue R-250 displays metachromasia by appearing pink-red, rather than blue, when binding certain proteins, such as collagen and histone H1.<sup>2</sup>

### 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).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/14500](http://www.caymanchem.com/catalog/14500)

**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 via email to your institution.

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