



MP Biomedicals, LLC

29525 Fountain Parkway  
Solon, Ohio 44139

Telephone: 440/337-1200  
Toll Free: 800/854-0530  
Fax: 440/337-1180  
mailto: [biotech@mpbio.com](mailto:biotech@mpbio.com)  
web: <http://www.mpbio.com>

## TECHNICAL INFORMATION

Catalog Number: 194591, 195189

### Giemsa Stain

CAS # 51811-82-6

**Description:** A biological stain for thin blood films to differentiate leucocytes, for thick blood films to show malarial parasites, and for bone marrow to show cell morphology. A compound of eosin with methylene blue and its oxidation products.

When blood films are stained using Giemsa stain, the nucleus and cytoplasm of white blood cells take on a characteristic blue or pink coloration.

### Typical Solution Preparations:

– Add 0.5 g of the powdered dye to 33 ml of glycerol. Let stand with stirring at 55-60°C for 1.5 hours. Then add 33 ml of methanol and let the solution stand with stirring for 24 hours. For final staining with this solution add approximately 0.67 ml to 30 ml of distilled water. Stain slide with the working solution for about 15 to 40 minutes, or until good results are achieved.

– Dissolve 0.8 g stain in 100 ml of a mixture of equal volumes of glycerol and methanol, by shaking 2 or 3 days in a mechanical shaker or 3-4 days occasionally by hand with glass beads. For use dilute in 50 vol. of distilled water buffered to pH 6.0-6.5 with phosphate buffer; however, final working solution may be different depending on procedure.

– Add 10 grams stain to 100 ml ice cold water. Shake and let stand with stirring for 24 hours in the refrigerator. Filter off precipitate.

**Procedure:** Procedures for many applications can be found in Clark's Staining Procedures.

### Availability:

Catalog Number	Description	Size
195189	Giemsa Stain	1 g 5 g 10 g 25 g
194591	Giemsa Stain, cell culture reagent	1 g 5 g 10 g 25 g

### Also Available:

Catalog Number	Description	Size
800687	Glycerol, Ultra Pure	500 ml
800688		1 liter
800689		4 liters
155387	Methanol, spectrophotometric grade	500 ml 1 liter

170062	Coplin Staining Jar, high density polyethylene, a tapered square jar with a domed, shallow-thread screw cap. Internal grooves hold up to 10 standard 25 x 75 mm slides back to back, 59 mm diameter base, 114 mm high.	12 per case
--------	--	-------------

**References:**

- Clark, G. (ed.), *Staining Procedures, 4th Ed.*, Williams and Wilkins: Baltimore (1981), pp. 352, 173-174, 270, 305-307, 352, 398, 418, 439, 465-466
- Lillie, R.D. (ed.), *H.J. Conn's Biological Stains, 9th Ed.*, The Williams and Wilkins Company (1977), p. 423, 496, 606, 500, 422, 13, 497, 491.