

## CYTOLOGICAL STAINING OF THE MUCOSAL EPITHELIUM USING MODIFIED GIEMSA

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### Abstract

*Giemsa is a solution containing a mixture of methylene blue and eosin, if the blood preparation is stained with giemsa solution, the erythrocyte will stain pink, and the leukocyte nucleus will become dark purple. The composition in the giemsa solution consists of: azur II-eosin 3.0 grams; azur II 0.8 grams; glycerin 250 ml; 250 ml of methyl alcohol. The principle of the giemsa coloring is black precipitation which is formed from the addition of a solution of methylene blue and eosin dissolved in methanol. Gambir (Uncaria gambir) is also used as a raw material in the textile and batik industry, namely as a dye that is resistant to sunlight which has high tannin and catechin content. The research aims to replace eosin with gambier. This type of research is an experiment using mucosal epithelial samples. Samples were stained using giemsa with 3 treatments, namely gambier 5%, 10%, 15% as a substitute for eosin in giemsa which will color the cell nucleus and cytoplasm. The best results obtained from this study were with a concentration of 5% with good color intensity, the nucleus of the cell was dark blue, the cytoplasm was light blue with the cell structure still identifiable.*

**Keywords:** *Gambir, Giemsa Stain, Mucous Epithelium,*