



(Hopkin's-cole test)

Objective: The Hopkins-Cole is for aldehyde group in the amino acid tryptophan and proteins containing this amino acid .

Principle

The indole ring of tryptophan combines with aldehyde , e.g formaldehyde in the presence of Concentrated sulfuric acid to form a violet tryptophan derivative.

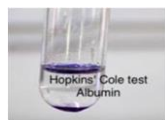


Reagents:

1-Dilute formalin(this is prepared by diluting 40% of formalin)and take 1ml of 40% formalin and make the total volume 500 with distilled water .

2-Mercuric sulphate solution ,15% solution of mercuric sulphate in 6N H₂SO₄ .

3- Concentrated sulfuric acid.



Procedure

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Take 1ml of original solution add two drop of mercuric sulphate and take 1ml of Concentrated sulfuric acid along the test tube

Result

Positive Hopkin's cole test: purple color at the interface. (tryptophan and egg albumin)

Negative Hopkin's cole test: glycine.

