Topfer Reagent

R021

Intended use

Topfer Reagent is used as an indicator in determination of strength of free acids in gastric contents by titration method.

Composition**

Ingredients	
Dimethylaminobenzene	0.5gm
95%Ethanol	100ml

**Formula adjusted, standardized to suit performance parameters

Directions

Filter the contents of sample through two thicknesses of gauze, if necessary. Take 10 ml of it and put it in a porcelain evaporating dish and add 1 or 2 drops Topfer Reagent and 1 or 2 drops of phenolphthalein solution (1% alcoholic solution). Titrate with 0.1 N NaOH until the red colour disappears. This reading should be taken for free hydrochloric acid. Continue titration until the red colour of phenolphthalein appears, further addition of alkali does not darken the red colour. Take the burette reading for the total acidity, counting from the original reading.

Principle And Interpretation

Gastric secretion contains hydrochloric acid, secreted by the pariental cells of the fundus and upper body of the stomach and an alkaline enzyme-mucoprotein complex secreted by the superficial mucosal cells. There are two laboratory methods for gastric analysis. The tubeless technique investigates the ability of the stomach to produce acid. The incubation technique allows measurement of gastric secretion under basal and maximal output conditions and gives the quantitative values of gastric secretion. Topfer reagent is used for titration of acid with 0.1 N sodium hydroxide and phenolphthalein.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/ eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Performance and Evaluation

Performace of the product is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Orange coloured solution.

Clarity
Clear without any precipitate.

Test
Gastric analysis is carried out using Topfer reagent as an indicator for the titration of gastric acid with 0.1 N sodium hydroxide and phenolphthalein.

Results
Can be calculated as :% Free HCl acidity = No. of mm from beginning x 10 to the first reading

% Total acidity = No. of mm from begining x 10 to the last reading

Storage and Shelf Life

Store below 30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1) Textbook of Medical laboratory Technology; Praful B. Godkar

2) Lapage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology', Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.

3) MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.

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IVD	In vitro diagnostic medical device
CE	CE Marking
30°C 10°C	Storage temperature
	Do not use if package is damaged
	HiMedia Laboratories Pvt. Limited, Swastik Disha Business Park,Via Vadhani Ind. Est., LBS Marg, Mumbai-400086, India. www.himedialabs.com
EC REP	CE Partner 4U ,Esdoornlaan 13, 3951 DB Maarn The Netherlands, www.cepartner 4u.eu