



Oxidase Reagent

RDM-OR-01

Principle

The oxidase test is based on bacterial production of an intracellular oxidase enzyme and some organisms may produce more than one type of oxidase enzyme. These enzymes participate in the cellular respiration process and catalyze removal of hydrogen from a substrate using oxygen as a hydrogen acceptor. The oxidase test often uses a reagent, tetra-methyl- p-phenylenediamine dihydrochloride, as an artificial electron donor for cytochrome c. When the reagent is oxidized by cytochrome c, it changes from colorless to a dark blue or purple compound, indophenol blue.

Use: Oxidase reagent is used to carry out the oxidase test.

Ingredients

N, N, N, N-tetramethyl-p-phenylenediamine dihydrochloride	1.00 gm
Distilled water	100.0 ml

* Formula adjusted for optimum performance and parameters

Directions: Biochemical identification was carried out by using oxidase reagent (RDM-OR-01). Test organism grow on nutrient agar or any other suitable neutral pH medium and incubate 24-48 hours at 35±°C Place filter paper on growth and add 2 to 3 drops of oxidase reagent on to a filter paper in a petridish. Observe for appearance of deep blue purple colour within 10 seconds.

Specimens types analyzed

Isolated test organism on primary or subculture plates.

Precautions to be taken

All the handling, experiments, storage, and discarding should be performed with the help of trained and experienced technicians and as per the established guidelines. The material should be disposed only after proper serialization by autoclaving.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control	
Appearance	Bluish to black colored solution
Clarity	Clear without any precipitation.

Organism	ATCC	Oxidase reaction
<i>Pseudomonas aeruginosa</i>	27853	Positive (development of purple-blue color)
<i>Neisseria gonorrhoeae</i>	19424	Positive (development of purple-blue color)
<i>Staphylococcus aureus</i>	25923	Negative (No change in color)

Storage and Shelf Life: Keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving or incineration after completion of task.

Reference

1. Atlas, R. M. (2004). *Handbook of microbiological media*. CRC press.
2. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
3. American Public Health Association, & American Public Health Association. (2005). Standard methods for the examination of water and wastewater. APHA. *American Water Works Association and Water Environment Federation, 21st ed.; American Public Health Association: Washington, DC, USA.*

Disclaimer

The information contained in the technical data sheet is to the best of our knowledge is accurate and true based on the research and development work carried out by **ReadyMED®**, Chaitanya Agro Biotech, Malkapur, Maharashtra. The products are neither intended for any therapeutic use for animal or human nor for any other *in-vivo* applications. The **ReadyMED®** products are only meant to be used for the laboratory, diagnostic, research, or further manufacturing purpose only. These technical outcomes should not be considered as the warranty of any kind expressed or implied, and no liability is accepted for infringement of any patent.

CHAITANYA AGRO BIOTECH PVT. LTD.

An ISO 11133:2014, ISO 13485:2016, ISO 9001:2015 CE,

CIN NO.: U24210MH1995PTC095220S,

S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101,

Dist.: Buldana (M.S.) India. Customer Care +91-8208650655

rdmsales@chaitanyagroupindia.com, mkt.cabt@chaitanyagroupindia.com

www.chaitanyagroupindia.com