1201 - AGAR AGAR POWDER (Bacteriological Grade)

INTENDED USE

Agar Agar Powder (Bacteriological Grade) as a solidifying constituent in microbiological culture media, and is widely used practically for all pathogenic and non-pathogenic bacteria as well as fungi. It does not inhibit the growth of organisms and its gel has good firmness, elasticity, clarity and stability.

PRODUCT SUMMARY AND EXPLANATION

Agar Agar Powder (Bacteriological Grade) has a high mineral / metal content and thus is advantageous to use in certain media. It is off white to creamish coloured free flowing powder having particle size that can pass through 40 ASTM Screen., It swells but does not dissolve when suspended in cold water. However, it is soluble in hot water and solubility is facilitated by soaking the powder in cold water.

PRINCIPLE

Agar is prepared from species of red seaweeds specially selected for their Agar gel production, using stainless steel equipment, observing good manufacturing practice. It is a Bacteriological grade powder with high mineral / metal content and is advantageous to use in certain media.

INSTRUCTION FOR USE

Agar Agar powder (Bacteriological Grade) is used in clinical, bacterial and yeast transformation studies. Bacteriological agar is generally used in a concentration of 1 - 2% for microbiological culture media preparations, 0.5% for motility testing and 0.1% maximum for anaerobes and microaerophiles growth.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Off white to creamish color free flowing powder
Solubility (2% soln. at 90ºC)	:	Soluble in hot water. Near to clear.
Clarity (1% Soln. at 121ºC)	:	Near to clear jelly. No ppt.
pH (2% Soln. at 25ºC)	:	6.0 – 7.0
Loss on drying (at 105ºC)	:	NMT – 18.0%
Acid Insoluble Ash	:	NMT – 0.5%
Gelling Temp.	:	38 – 40ºC
Melting Temp.	:	85 – 88ºC
Total Ash	:	NMT – 5.0%
Gel Strength (1.5% Gel)	:	NLT – 750 g/cm2
Heavy Metals (Pb)	:	NMT – 20 ppm

INTERPRETATION

Cultural response observed after an incubation at 35-37°C for 18-24 hours for bacteria and 120 hours for fungus by preparing Nutrient Agar using Agar Agar powder (Bacteriological Grade) as an ingredient

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours
Escherichia coli	8739	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours
Salmonella typhimurium	14028	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours
Staphylococcus aureus	25923	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours

P. aeruginosa	27853	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours
E. faecalis	29212	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours
B. subtilis	6633	50-100	Luxuriant	>=70%	30-35˚C	18-24 hours

PACKAGING:

Standard packing is 100gm, 500gm, in plastic bottle. After packing containers are tightly closed in a dry and well-ventilated place.

STORAGE

Store at room temperature in cool place, keep plastic bottle tightly closed in a dry and well-ventilated place. 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.

Product Deterioration: Do not use product if any contamination, discoloration or other sign of deterioration is found.

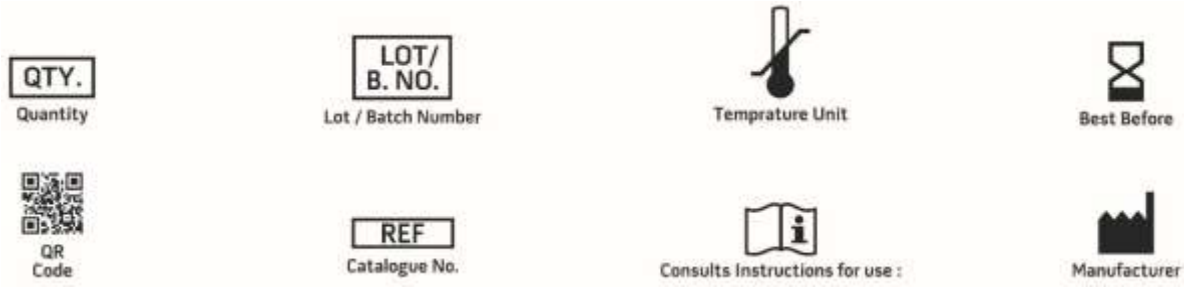
DISPOSAL

After use, contact a licensed professional waste disposal service to dispose off this material. Dispose of as unused product.

REFERENCES

Francavilla M, Pineda A, Lin C S K, Franchi M, Trotta P, Romero A A, Luque R. 2013. Natural porous agar materials from macroalgae. Carbohydrate polymers 2-13.

United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 05th Oct. 2019