Rootlab Gellan Gum HA

High acyl gellan gum for plant tissue culture

High acyl | Soft, elastic gel | Gels without added cations | Sets at about 70 to 80°C

PRODUCT CODE	CAS NUMBER	INS / E NUMBER	SOURCE
RTLGGHA	71010-52-1	418 / E418	Fermentation of *Sphingomonas elodea*

SPECIFICATION

PARAMETER	UNIT	SPECIFICATION
PHYSICAL AND CHEMICAL		
Appearance		**Off-white powder**
Identification		**Passes test**
Purity, gellan gum content	%	**85.0 to 108.0**
Assay as CO_2 (dried basis)	%	**3.3 to 6.8**
pH (0.5% in deionised water)		**4.5 to 7.0**
Particle size (through 60 mesh)	%	**≥90**
Loss on drying	%	**≤15.0**
Residual 2-propanol (IPA) or ethanol	mg/kg	**≤750**
Total nitrogen	%	**≤3**
Suspension		**Passes test**
HEAVY METALS		
Lead (Pb)	mg/kg	**≤2**
Heavy metals (as Pb)	mg/kg	**≤20**
Arsenic (As)	mg/kg	**≤2**
Cadmium (Cd)	mg/kg	**≤1**
Total mercury (Hg)	mg/kg	**≤1**
MICROBIOLOGICAL		
Total plate count	cfu/g	**≤10,000**
Yeasts and moulds	cfu/g	**≤400**
Coliforms	MPN/100 g	**≤30**
Salmonella		**Not detected in 25 g**
E. coli		**Not detected in 5 g**

Each batch ships with a Certificate of Analysis. Gel strength is reported there for information only.

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Gel properties, use and handling

GEL PROPERTIES

PROPERTY	HIGH ACYL BEHAVIOUR
Texture	Soft and elastic; springs back rather than fracturing
Clarity	Opalescent to hazy rather than water clear
Setting temperature	About 70 to 80°C, so media firm quickly after autoclaving
Behaviour on reheating	Fully thermoreversible; can be remelted and redispensed
Cation requirement	Gels without added cations; suits low salt, hormone free and custom media
Syneresis	Minimal; the gel holds its water between transfers

RECOMMENDED USE RATES

APPLICATION	USE RATE (G/L)
General tissue culture, soft matrix	**4.0 to 6.0**
Firmer matrix	**6.0 to 8.0**

To tune texture, blend with Rootlab Gellan Gum LA, starting at 1 part HA to 3 parts LA. HA stays soft and elastic at every loading and never reaches a low acyl firmness.

PREPARATION

1. Disperse the powder into cold or room temperature water while stirring vigorously to avoid clumping.
2. Add media salts, sugar and supplements, then adjust pH to 5.4 to 5.8.
3. Autoclave at 121°C (15 psi) for 15 to 20 minutes.
4. Dispense promptly. The gel begins setting from about 70 to 80°C, so keep media hot until dispensed.

Need clarity or a firm cutting surface? Use Rootlab Gellan Gum LA, which sets optically clear and sliceable.

STORAGE AND PACKAGING

- Store sealed at 15 to 30°C in a cool, dry place.
- Shelf life 24 months from production.
- Batch expiry is on the label and COA.
- Packs of 100 g, 300 g, 500 g and 1 kg.

INTENDED USE

- For plant tissue culture and laboratory media.
- Not for food, feed, therapeutic or diagnostic use.
- Vegan; free of gluten and soy allergens.
- SDS on request from info@rootlab.com.au.

Information is given in good faith. Confirm suitability for your own protocols before use.