

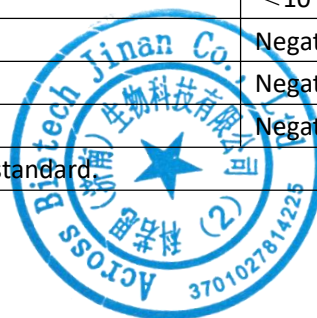


ACROSS BIOTECH
MAKE A DIFFERENCE

Certificate of Analysis

Product name	γ -polyglutamic acid(γ -PGA)	Batch No.:	PGA202410091
Package:	1kg/bag	Quantity:	30kg
MFG Date:	2024/10/09	EXP Date:	2026/10/08

Items	Standards	Results
Appearance	White or off-white powder or granule	Conform
Assay (as Na)	$\geq 92.0\%$	93.2%
pH (1% solution)	5.0-7.5	5.34
Intrinsic viscosity	Actual test value	1.60 dL/g
Absorbance (4%, 400nm)	≤ 0.12	0.018
Loss on drying	$\leq 10.0\%$	5.68%
Residue on ignition	$\leq 0.3\%$	0.1%
Particle size	95% passes through 80 mesh	Conform
Lumiflavin	≤ 0.025	0.007
Specific rotation	$-115^{\circ}\sim-135^{\circ}$	-120.5°
Lead	$\leq 10\text{ppm}$	$< 10\text{ppm}$
Heavy metals (Pb)	$\leq 10\text{ppm}$	$< 10\text{ppm}$
Bulk density	$\geq 0.30\text{g/ml}$	0.45g/ml
Total Plate count	$\leq 100\text{ CFU/g}$	$< 10\text{ CFU/g}$
Yeasts & molds	$\leq 100\text{ CFU/g}$	$< 10\text{ CFU/g}$
Fecal coliforms	Negative	Negative
Pseudomonas aeruginosa	Negative	Negative
Staphylococcus aureus	Negative	Negative
Conclusion:	Conform to the enterprise standard	



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