MOLECULAR PROBES®

CERTIFICATE OF ANALYSIS

Catalog Number	C37232
Product Name	CML latex, 4% w/v 0.04 µm
Appearance	white suspension
Medium	de-ionized water
Lot Number	1872872

Negatively charged polystyrene microspheres with sulfate and high density of carboxyl functional groups on the surface.

Surface charge is pH dependent. Stable at wide range of pH. Surface is hydrophobic at low pH and somewhat hydrophilic at high pH.

STORE AT 2 - 8°C, DO NOT FREEZE

	LOT DATA	SPECIFICATION
PHYSICAL PROPERTIES OF PS[1]		
Density at 20°C	1.055 g / cm^3	n.a.
Refractive Index at 590 nm, 20°C	1.591	n.a.
TECHNICAL DATA		
Material Lot Number	1678196	n.a.
Mean Diameter (TEM)[2]	0.045 µm	0.04 ± 0.01 µm
Standard Deviation of Diameter	0.008 µm	n.a.
Coefficient of Variation of Diameter	16.6 %	≤20 %
Percent Solids w/v	4.0 %	3.5 - 4.5 %
Carboxyl Charge Titration Data	650.1 µEq / g	n.a.
Bioburden Test	meets specification	0 CFU / mL
THE CALCULATED DATA		
Particle Number per Milliliter of Latex	7.8×10^{14}	n.a.
Specific Surface Area	1.3×10^6 cm^2/g	n.a.
Parking Area per Carboxyl Group[3]	32 A^2 / COOH	n.a.
Carboxyl Groups per Particles	2.0×10^4	n.a.

1. *of polystyrene*
2. *by Transmission Electron Microscopy.*
3. *assuming monolayer.*

Rachel Smith

Rachel Smith, Ph.D., Quality Assurance

06-Mar-2015

Life Technologies Corporation, on behalf of its Invitrogen business, Molecular Probes® labeling and detection technologies, certifies on the date above that this is an accurate record of the analysis of the subject lot and that the data conform to the specifications in effect for this product at the time of analysis.

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