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DATA SHEET

> Agarose Low Electroendosmosis

6X Orange Loading Buffer is formulated to facilitate loading of DNA containing samples into the wells of agarose and polyacrylamide gels. The buffers contain tracking dyes as indicator for DNA fragment migration. In addition, they contain glycerol to add density and EDTA to inhibit nuclease activities.

cat. no.	*amount*	*note*
STS-AG500	500g	Molecular Biology Grade, powder
STS-AG1000	1Kg	Molecular Biology Grade, powder

CHEMICAL AND PHYSICAL TEST RESULTS

					concentration 1%	concentration 1,5%
Appearance	:	fine, homogeneous powder	*Clarity (NTU)*	:		1,88
Color	:	white	*pH in solution*	:		6,8
Particle Size (A.S.T.M.)			*pH in gel*	:		6,14
over sieve 60	:	0,20%	*Colorimetry (Absorbance)*			
over sieve 100	:	42,25%	*n m u 450*	:		0,015
over sieve 140	:	27,25%				
over sieve 200	:	13,90%				
under sieve 200	:	16,50%				
Moisture	:	6,19%	*Gel strength*	:	1,500 g/cm^2	3,270 g/cm^2
Ash	:	0,26%	*Gelling temperature*	:		37,3°C
Electroendosmosis - Mr (pH 8.4, Wieme method)	:	0,12%	*Melting Temperature*	:		89,1°C
Sulfate	:	0,082%				

FUNCTIONAL TEST RESULTS

Comparative assay of different size DNA fragments	:	passes test
Background fluorescence assay in Ethidium Bromide	:	passes test
Dnase and Rnase	:	none detected

FOR RESEARCH USE ONLY

SHIPPING
Shipped at room temperature.

STORAGE
Store at room temperature.

SHELF LIFE
12 months

FORM
white powder

PROPERTIES
Sulfate content – used as an indicator of purity, since sulfate is the major ionic group present.
Gel strength – the force that must be applied to a gel to cause it to fracture.
Gelling temperature- the temperature at which an aqueous agarose solution forms a gel as it cools.
Agarose solutions exhibit hysteresis in the liquid-to-gel transition – that is, their gel point is not the same as their melting temperature.
Electroendosmosis (EEO) – a movement of liquid through the gel. Anionic groups in an agarose gel are affixed to the matrix and cannot move, but dissociable counter cations can migrate toward the cathode in the matrix, giving rise to EEO. Since electrophoretic movement of biopolymers is usually toward the anode, EEO can disrupt separations because of internal convection.