

Materials List for

Atomic Force Microscopy to Study the Physical Properties of Epidermal Cells of Live Arabidopsis Roots

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Materials

Name	Company	Catalog Number	Comments
1 x Phosphate-Buffered Saline (PBS)			Include sodium chloride and phosphate buffer and is formulated to prevent osmotic shock and maintain water balance in living cells.
AFM software	Bruker, Billerica, MA, USA		
Atomic force microscopy (AFM)	BioScope Catalyst, Bruker, Billerica, MA, USA		
Catalyst Probe holder-fluid	Bruker, Billerica, MA, USA	CAT-FCH	A probe holder for the Bioscope Catalyst, designed for fluid operation in contact or Tapping Mode. Also compatible with air operation.
Cryoscopic osmometer; model OSMOMAT 030	Gonotech, Berlin, Germany		
Murashige & Skoog Medium	Duchess Biochemie	M0221	Original concentration, (1962)
Optical inverted microscope coupled to the AFM	Olympus IX81, Miami, FL, USA		
PEGAMIL	ANAEROBICOS S.R.L., Buenos Aires, Argentina	100429	Neutral, non acidic silicone glue
Petri dishes	Deltalab	200201.B	Polystyrene, 55 x 14 mm, radiation sterile.
Propidium iodide	Sigma	P4170	For root viability test.
Silicon nitride probe, DNP-10, cantilever A	Bruker, Billerica, MA, USA	DNP-10/A	For force modulation microscopy in liquid operation. Probe tip radius of 20-60 nm. 175- μ m-long triangular cantilever, with a spring constant of 0.35 N/m.
Tweezers	Sigma	T4537	