

Materials and Equipments

Materials

Material	Source
Bichinconinic acid (BCA) protein Assay Kit	Banglore Genei, India
Boric acid	S.D. Fine chemicals, India
HPLC grade methanol, acetonitrile	Merck India Ltd.
Iodine, Potassium iodide	S.D. Fine chemicals, India
Lamotrigine (LTG)	Gift samples from Alembic Pharmaceutical Ltd, Baroda, India.
Nuclepore Polycarbonate membrane 2 μ m 25mm	Whatman, USA
PLGA (50:50)	Gift samples from Boehringer Ingelheim, Germany
Potassium dihydrogen phosphate, potassium hydroxide, sodium chloride	Merck India Ltd.
PVA, M_w 30,000–70,000 kDa; hydrolyzed 87–89%	Sigma chemicals, India
Sodium Lauryl sulphate (SLS), Tween-80	S.D. Fine chemicals, India
SR-4GL (hexa epoxy compound)	Gift sample from Sakamoto Yakuhin Kogyo Co., Ltd., Japan
Tramadol (TMD)	Gift samples from Wockhardt Ltd, Aurangabad, India
Water (distilled)	Prepared in laboratory by distillation

Equipments

Equipments	Source/Make
Analytical balance	AX 120, EL 8300, Shimadzu Corp., Japan
Bath sonicator	DTC 503, Ultra Sonics
Calibrated glasswares (pipettes, volumetric flasks, funnels, beakers)	Schott & Corning (India) Ltd., Mumbai
Cooling centrifuge	3K 30, Sigma Laboratory centrifuge, Osterode, GmBH.
Cyclomixer, magnetic stirrer	Remi Scientific Equipments, Mumbai
Differential Scanning Calorimeter (DSC)	Mettler DSC 20, Mettler Toledo, Switzerland
HPLC system	LC 20-AT prominence, Shimadzu Corp., Japan
¹ H-NMR	av300, Bruker, UK
Lyophilizer	DW1, 0-60E, Heto Drywinner, Denmark
pH meter	Pico ⁺ Labindia, Mumbai, India
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PS and ZP analyzer	NanoZS, Malvern Instruments, U.K.
Spectrofluorimeter	Rf540, Shimadzu Corp., Japan
Transmission Electron Microscope (TEM)	Morgagni, Philips, Netherlands
UV-Visible Spectrophotometer	Shimadzu UV-1700, Japan
Viscometer	Brookfield (LVDV III)