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List of Chemicals

Chemicals	Grade/quality	Supplier/Company
1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide (EDC)	Analytical Grade	SRL, India
2',7'-dichlorodihydrofluorescein diacetate (H ₂ DCFDA) dye	Cell culture grade	Sigma-Aldrich, USA
3-(4,5-Dimethylthiazol-2-yl)-2, 5-Diphenyltetrazolium Bromide (MTT)	Cell culture grade	Sigma-Aldrich, USA
4-bromophenyl boronic acid	Analytical grade	SRL, India
4',6 -diamidino-2-phenylindole (DAPI)	Molecular biology	Sigma-Aldrich, USA
5,5,6,6'-tetrachloro-1,1',3,3' tetraethylbenzimi-dazoylcarbocyanine iodine (JC-1) dye	Cell culture grade	Sigma-Aldrich, USA
6-Carboxyfluorescein diacetate (6-CFDA)	Cell culture grade	Sigma-Aldrich, USA
Acetic acid	Analytical grade	Fisher Scientific chemicals, USA
Annexin V-Cy3.18	Cell culture grade	Sigma-Aldrich, USA
Antibiotic solution	Biological grade	Himedia, India
Calcium chloride (CaCl ₂)	Analytical grade	Fisher Scientific chemicals, USA
Compritol 888 ATO	Excipient grade	Gattefossé, India
Coumarin 6 (C6)	Laser Grade 98%	Sigma-Aldrich, USA
Cremophor EL	Excipient grade	BASF Chemical Company, USA
Cremophor RH 40		
Crystal violet	Reagent grade	Sigma-Aldrich, USA
Dextrose	Analytical grade	Merck, USA
Dimethyl formamide (DMF)	Analytical grade	SRL, India
Dimethyl sulphoxide (DMSO)	Analytical grade	SRL, India
Dimethyl sulphoxide (DMSO)	Cell culture grade	Sigma-Aldrich, USA
Disodium hydrogen phosphate (Na ₂ HPO ₄)	Analytical grade	Fisher Scientific chemicals, USA
Docetaxel	USP	Fresenius Kabi, Gurgaon, India
Dulbecco's modified Eagle's medium (DMEM)	Cell culture	Himedia, India
Elisa Kit	Diagnostics Reagents	Arkray, India
Erlotinib	USP	BLD Pharma, Hyderabad, India
Fetal bovine serum (FBS)	Cell culture grade	Gibco, Brazil
Folic acid (FA)	Analytical grade	Sigma-Aldrich, USA
Formaldehyde	Analytical grade	Fisher Scientific chemicals, USA
Fructose	Analytical grade	Loba Chemie Pvt. Ltd., India
Gelucire [®] 44/14	Excipient grade	Gattefossé, India
Gelucire [®] 50/13		
Glyceryl monostearate (GMS)	Analytical grade	Fisher Scientific chemicals, USA
Hematoxylin & Eosin stain (H&E)	Biological grade	Sigma-Aldrich, USA

Heparin	Clinical grade	Medhep 5
Hydrochloric acid (HCl)	Analytical grade	Fisher Scientific chemicals, USA
Hydrogen peroxide (H ₂ O ₂)	Analytical grade	Sigma–Aldrich, USA
Isopropyl myristate (IPM)	Analytical grade	Fisher Scientific chemicals, USA
Labrasol	Excipient grade	Gattefossé, India
Labrafac PG		
Labrafac WL 1349		
Labrafil M2125Cs		
Mannitol	Analytical grade	Sigma–Aldrich, USA
Matrigel	Cell culture grade	Corning
Methanol	HPLC	Fischer Scientific, USA
Pancreatin	Analytical grade	SRL, India
Phosphatidylcholine	Excipient grade	Sigma–Aldrich, USA
Polaxamer 188	Excipient grade	BASF, Germany
Potassium chloride (KCl)	Analytical grade	Fisher Scientific chemicals, USA
Potassium dihydrogen phosphate (KH ₂ PO ₄)	Analytical grade	Fisher Scientific chemicals, USA
Precirol ATO 5	Excipient grade	Gattefossé, India
Pyridine	Analytical grade	SRL, India
Stearic acid (SA)	Analytical grade	Fisher Scientific chemicals, USA
Sodium chloride (NaCl)	Analytical grade	Merck, USA
Sodium hydroxide (NaOH)	Analytical grade	Merck, USA
Sodium taurodeoxycholate	Analytical grade	SRL, India
Sucrose	Analytical grade	Loba Chemie Pvt. Ltd., India
Toluidine	Reagent grade	Sigma–Aldrich, USA
Trehalose	Analytical grade	Sigma–Aldrich, USA
Tris–Maleate	Analytical grade	SRL, India
0.25% Trypsin–EDTA (1X)	Biological grade	Gibco, Canada
Tween 20	Analytical grade	Merck, USA
Tween 80	Analytical grade	Merck, USA

List of Instruments/Apparatus

Name	Model	Manufacturer/Supplier
Atomic force microscope (AFM)	NTEGRA Prima	NT-MDT Service & Logistics Ltd, Tempe, USA
Autoclave	JHE-020	Jyoti equipment Pvt. Ltd., India
Bath sonicator	LMUC-3	Labman, India
Benchtop centrifuge	Borosil, HMCF12VT, 15000RPM	LabQuest, India
Biochemical analyzer	CHEM-5-Plus v2	Erba Mannheim, Germany
Biohazard safety cabinet (cell culture lab)	CBS 1200	CleanAir, India
Cryostat Microtome	TNR TN60	Tanner Scientific, FL, USA
Differential scanning calorimeter (DSC)	DSC-60 Plus	M/s Shimadzu (Asia Pacific) Pvt Ltd. Japan
Electronic balance	QUINTUX224-10IN	Sartorius, Göttingen, Germany
Flow cytometer	CytoFlex LX,	Beckman coulter, MA, USA
Fluorescence microscope	Olympus BX53	Olympus, Tokyo, Japan
Fourier transform infrared (FTIR) spectroscope	Shimadzu FTIR 8300	Shimadzu, Tokyo, Japan
High-shear homogenization	IKA T-25 digital ultra Turrax	IKA, Germany
HPLC system	Agilent 1260 infinity II	Agilent, Santa Clara, CA, USA
Incubator (Cell culture lab)	Heracell VIOS 160i	Thermo fisher. MA, USA
Inverted stage microscope	Victory	Dewinter optical Inc., India
Lyophilizer	Alpha 1-2 LD Plus (ver 1.76)	Martin Christ, Germany
Magnetic stirrer	5MLH Plus	Remi, India
Mechanical rotary shaker	RS-12 Plus	Remi, India
Microplate UV reader	EPOCH	Biotek Company, Highland park, Winooski, USA
Millipore water system	Aurium Pro Ultrapure	Sartorius, Göttingen, Germany
pH meter	LMPH-10	Labman, India
Probe sonicator	UP 200H	Hielscher, Germany
Stability chamber	PHSC-10A	SR Lab instrument
Transmission electron microscope (TEM)	Tecnai-G2 20 Twin	FEI, USA
Ultracentrifuge	Type 90 Ti rotor	Beckman Coulter, Brea, CA, USA
Ultra-visible spectrophotometer (UV-VIS)	Carry 60	Agilent, Santa Clara, USA
Vortex mixer	SPINIX-Vortex Shaker	Tarsons, India
Zetasizer	DelsaTMNano	Beckman colter, Brea, CA, USA