

## Technical Equipment for Laboratory Services

Category	Equipment	Supplier	Detection methods
<b>Chromatography</b>			
GC	Agilent systems Liquid injection and Headspace (Transferline) with Empower Software	Agilent	<ul style="list-style-type: none"> <li>▪ Flame ionization detection (FID)</li> <li>▪ Mass selective detection (MS)</li> <li>▪ Thermal Conductivity detection (TCD)</li> <li>▪ Headspace-injection</li> </ul>
HPLC	Alliance and ARC HPLC systems-with Empower software	Waters	<ul style="list-style-type: none"> <li>▪ UV/PDA detection</li> <li>▪ Fluorescence detection</li> <li>▪ Refractive index detection</li> <li>▪ Evaporative light scattering detection (ELSD)</li> <li>▪ Conductivity detection</li> <li>▪ Pre- or post-column derivatization equipment</li> </ul>
HPLC	Acquity ARC systems with Empower software	Waters	<ul style="list-style-type: none"> <li>▪ PDA detection</li> </ul>
TLC	System containing TLC sampler ATS4, Scanner3, box visualizer with Vision Cats software	CAMAG	
UPLC-CAD	ThermoScientific Veo RS Charged Aerosol Detector		
UHPLC	UPLC, H-Class, Acquity Premier with PDA / charged aerosol detector	Waters	<ul style="list-style-type: none"> <li>▪ PDA detection</li> <li>▪ Mass selective detection (MS)</li> <li>▪ high-resolution mass spectrometry (HRMS)</li> <li>▪ Charged Aerosol detection (CAD)</li> </ul>
UHPLC	1290 Infinity I/II	Agilent	<ul style="list-style-type: none"> <li>▪ UV/PDA</li> <li>▪ Refractive index detection</li> </ul>
<b>Mass Spectrometry</b>			
GC-MS	Agilent system with SingleQuad-MS, liquid and headspace injection with Masshunter software	Agilent	
LC-MS	ZenoTOF 7600 (HRMS) with Acquity Premier UPLC system and SciexOS software	Sciex	<ul style="list-style-type: none"> <li>▪ PDA detection</li> <li>▪ high-resolution mass spectrometry (HRMS)</li> </ul>

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<b>Electrophoresis</b>			
Capillary Electrophoresis	CESI 8000 Plus, with UV/PDA/LIF-Detector with Empower software	Sciex	<ul style="list-style-type: none"> <li>▪ UV/PDA detection</li> <li>▪ Laser Induced Fluorescence detection (LIF)</li> </ul>
BioAnalyzer 2100	„chip-based“ Gel electrophoresis with Fluorescence detection, 2100 Expert software with Security Pack	Agilent	
<b>Spectroscopy</b>			
AAS	Flame AAS with autosampler and SpectrAA software	Agilent	
AAS	Graphite tube ASS with autosampler and SpectrAA software	Agilent	
UV/VIS	Lambda 365 with UVWinLab software, incl. S10 autosampler	Perkin Elmer	
UV/VIS/FLR	Infinite 200 Pro Microplate Reader with Magellan software	Tecan	
<b>Further analytical Equipment</b>			
Dissolution	Dissolution testers manual and automatic, apparatus 1 and 2 according to Ph. Eur. and USP	Sotax Erweka	
Media Preparation	MediPrep821 for Dissolution media	Erweka	
Density	Densitometer	Anton Paar	
Microscope	Microscope	Olympus	
Penetrometry	Penetrometer	Herzog	
pH meters	Different pH meters	Metrohm	
FT-IR	FT-IR ALPHA	Bruker, Thermo Fisher	
Viscosimetry	capillary viscometer	Schott	
Viscosimetry	DVNext Rheometer Cone/plate, Plate/plate	Ametek Brookfield	
Titration	Titrande 888 with autosampler and tiamo software	Metrohm	
Titration	Karl Fischer Coulometer, 874 USB Oven Sample Processor	Metrohm	

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Conductometry	Conductometer	Metrohm	
Refractometry	Refractometer	Anton Paar	
Tablet hardness testers	Tablet hardness tester	Erweka	
Particle counting	automated parenteral sampling system APSS-200 LiquiLAZ E20P	PMT	
Laser diffraction	Mastersizer 2 and 3, Sympatec Helos BR SPRAYER ROTOR	Malvern	
Dynamic light scattering (DLS) / Electrophoretic light scattering (ELS)	Zetasizer Pro	Malvern	
Scanning electron microscopy (SEM)	EM-30, Energy dispersive X-ray spectroscopy (EDX)	COXEM	
Membrane diffusion testing	Franz Cell	Hanson	
Differential Scanning Calorimetry	DSC Typ: ENG A4K+	Jade	
<b>Laboratory equipment</b>			
Suntester	Suntester	Q-Lab	
Weighing	Micro balances	Sartorius, Mettler-Toledo	
Weighing	Balances	Sartorius, Mettler-Toledo	
Weighing	Balance: Quantos Dosing system	Mettler-Toledo	