

Quantitative Metabolomics of *Saccharomyces Cerevisiae* Using Liquid Chromatography Coupled with Tandem Mass Spectrometry

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jove.com/video/62061

Materials

Name	Company	Catalog Number	Comments
Chemicals			
Acetonitrile	Fisher Scientific	A9554	
Ammonium acetate	Fisher Scientific	A11450	
Ammonium bicarbonate	Sigma	9830	
Bactopectone	Fisher Scientific	BP1420-2	
Chloroform	Fisher Scientific	C297-4	
Glucose	Fisher Scientific	D16-10	
L-histidine	Sigma	H8125	
L-leucine	Sigma	L8912	
L-lysine	Sigma	L5501	
Methanol	Fisher Scientific	A4564	
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Propidium iodide	Thermo Scientific	R37108	
Uracil	Sigma	U0750	
Yeast extract	Fisher Scientific	BP1422-2	
Hardware equipment			
500 ml centrifuge bottles	Beckman	355664	
Agilent 1100 series LC system	Agilent Technologies	G1312A	
Beckman Coulter Centrifuge	Beckman	6254249	
Beckman Coulter Centrifuge Rotor	Beckman	JA-10	
Centra CL2 clinical centrifuge	Thermo Scientific	004260F	
Digital thermometer	Omega	HH509	
Foam Tube Holder Kit with Retainer	Thermo Scientific	02-215-388	
SeQuant ZIC-pHILIC zwitterionic-phase column (5µm polymer 150 x 2.1 mm)	Sigma Milipore	150460	

Thermo Orbitrap Velos MS	Fisher Scientific	ETD-10600	
Ultrasonic sonicator	Fisher Scientific	15337416	
Vortex	Fisher Scientific	2215365	
ZORBAX Bonus-RP, 80Å, 2.1 x 150 mm, 5 µm	Agilent Technologies	883725-901	
Laboratory materials			
2-mL Glass sample vials with Teflon lined caps	Fisher Scientific	60180A-SV9-1P	
Glass beads (acid-washed, 425-600 µm)	Sigma-Aldrich	G8772	
Hemocytometer	Fisher Scientific	267110	
15-mL High-speed glass centrifuge tubes with Teflon lined caps	PYREX	05-550	
Software			
Compound Discoverer 3.1	Fisher Scientific	V3.1	
Yeast strain			
Yeast strain BY4742	Dharmacon	YSC1049	