

Materials List for:

Development of a Backbone Cyclic Peptide Library as Potential Antiparasitic Therapeutics Using Microwave Irradiation

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Materials

Name	Company	Catalog Number	Comments
REAGENTS			
Solid support, Rink Amide AM resin ML	CBL	BR-1330	loading: 0.49 mmol/g
Fmoc-Ala-OH	Advanced Chemtech	FA2100	
Fmoc-Arg(Pbf)-OH	Advanced Chemtech	FR2136	
Fmoc-Asn(Trt)-OH	Advanced Chemtech	FN2152	
Fmoc-Asp(OBut)-OH	Advanced Chemtech	FD2192	
Fmoc-Cys(Trt)-OH	Advanced Chemtech	FC2214	
Fmoc-Gln(Trt)-OH	Advanced Chemtech	FQ2251	
Fmoc-Glu(OtBu)-OH	Advanced Chemtech	FE2237	
Fmoc-Gly-OH	Advanced Chemtech	FG2275	
Fmoc-His(Trt)-OH	Advanced Chemtech	FH2316	
Fmoc-Ile-OH	Advanced Chemtech	FI2326	
Fmoc-Leu-OH	Advanced Chemtech	FL2350	
Fmoc-Lys(Boc)-OH	Advanced Chemtech	FK2390	
Fmoc-Met-OH	Advanced Chemtech	FM2400	
Fmoc-Phe-OH	Advanced Chemtech	FF2425	
Fmoc-Pro-OH	Advanced Chemtech	FP2450	
Fmoc-Ser(tBu)-OH	Advanced Chemtech	FS2476	
Fmoc-Thr(tBu)-OH	Advanced Chemtech	FT2518	
Fmoc-Trp(Boc)-OH	Advanced Chemtech	FW2527	
Fmoc-Tyr(But)-OH	Advanced Chemtech	FY2563	
Fmoc-Val-OH	Advanced Chemtech	FV2575	
1-Methyl-2-pyrrolidinone (NMP)	Sigma	328634	Caution Toxic/Highly flammable/Irritant.
<i>N,N</i> -Dimethylformamide (DMF)	Alfa Aesar	43465	Caution Toxic. Use high quality DMF to eliminate side reactions such as Fmoc removal as a result of the dimethylamine traces from DMF decomposition.
Dichloromethane (DCM)	Sigma	D65100	Caution Harmful
Dibromomethane (DBM)	Sigma	D41868	Caution Harmful
Trifluoroacetic acid (TFA)	Sigma	T62200	Caution Corrosive/Toxic
Trifluoroacetic acid, HPLC grade (TFA)	Sigma	91707	Caution Corrosive/Toxic
Diethylether	Sigma	31690	Caution Highly flammable/Harmful

Triisopropylsilane (TIS)	Sigma	233781	Caution Irritant/Flammable
Water, HPLC grade	Sigma	270733	
Acetonitrile, HPLC grade (ACN)	Fisher Scientific	A998-4	Caution Flammable/Irritant/Harmful
<i>N,N</i> -Diisopropylethylamine (DIEA)	Sigma	3440	Caution Corrosive/Highly flammable
Piperidine	Sigma	W290807	Caution Toxic/Highly flammable
Pyridine	Sigma	270970	Caution Highly flammable/Harmful
Ethanol (EtOH)	Sigma	459844	Caution Highly flammable/Irritant
1-Hydroxybenzotriazole hydrate (HOBt)	Sigma	157260	Caution Highly flammable/Irritant/Harmful
O-(Benzotriazol-1-yl)- <i>N,N,N',N'</i> -tetramethyluronium hexafluorophosphate (HBTU)	Sigma	12804	Caution Irritant/Harmful
Benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluorophosphate (PyBOP)	Advanced Chemtech	RC8602	Caution Irritant
Ninhydrin	Sigma	454044	Caution Harmful
Phenol	Sigma	P3653	Caution Corrosive/Toxic
Potassium cyanide (KCN)	Sigma	11813	Caution Very Toxic
Potassium hydroxide (KOH)	Sigma	221473	Caution Toxic
<i>N,N'</i> -Diisopropylcarbodiimide (DIC)	Sigma	38370	Caution Flammable/ Toxic
4-Dimethylaminopyridine (DMAP)	Sigma	522805	Caution Toxic/Irritant
Glutaric anhydride	Sigma	G3806	Caution Flammable/Irritant/Harmful
Succinic anhydride	Sigma	239690	Caution Irritant/Harmful
Adipic acid	Sigma	A26357	Caution Toxic/Irritant
Pimelic acid	Sigma	P45001	Caution Toxic/Irritant
Chloranil	Sigma	23290	Caution Toxic/Irritant
Acetaldehyde	Sigma	402788	Caution Flammable/ Toxic
EQUIPMENT			
Centrifuge	Beckman Coulter	Allegra 6R centrifuge	
Lyophilizer	Labconco	freezezone 4.5	
Vacuum pump	Franklin Electric	model 1101101416 with 3/4 HP	Alcatel pump with Franklin Motor
Polypropylene cartridge 12 ml	Applied Separation	2419	
Cap plug for 12 ml polypropylene cartridge	Applied Separation	8157	
Polypropylene cartridge 3 ml	Applied Separation	2413	
Cap plug for 3 ml polypropylene cartridge	Applied Separation	8054	
Stop cocks PTFE	Applied Separation	2406	
Tubes flat, 50 ml	VWR	21008-240	
Extraction manifold, 20 pos, 16 x 100 mm tubes	Waters	WAT200609	
Shaker, BD adams nutator mixer	Fisher scientific	22363152	
Nalgene HDPE narrow mouth IP2 bottles, 125 ml	Fisher scientific	03-312-8	
Erlenmeyer flask	Fisher Scientific	FB-501, 500 ml	
Heating block	Thermolyne	1760 dri bath	

Disposable borosilicate glass tubes with plain end	Fisher Scientific	14-961-25	
Micropipettes and tips Finnpiquette	Thermo	20–200 and 100–1,000 µl	
HPLC vials - micro vial pp 400 µl PK100	VWR	69400-124	
HPLC vial- Blue Snap-It Cap	VWR	66030-600	
Analytical HPLC column	Peeke Scientific	U1-5C18Q-JJ	ultra 120 5 µm C18Q, 4.6 mm ID 150 mm
Prep HPLC column, XBridge	Waters	OBD C18 5 µm column	19 mm × 150 mm
Mass spectrometer	Applied Biosystems	Voyager DE-RP	
Nitrogen cylinder			
Desiccator			
Analytical RP-HPLC system Shimadzu LC-20			equipped with: CBM-20A system controller, SPD-20A detector, CTO-20A column oven, 2 x LC-20AD solvent delivery unit, SIL-20AC autosampler, DGU-20A5 degasser (Shimadzu, MD, USA).
Preparative RP-HPLC system Shimadzu LC-20			equipped with: CBM-20A system controller, SPD-20A detector, CTO-20A column oven, 2 x LC-6AD solvent delivery unit and FRC-10A fraction collector (Shimadzu, MD, USA).