

Preparation of Enantiopure Non-Activated Aziridines and Synthesis of Biemamide B, D, and *epiallo*-Isomuscarine

Nikhil Srivastava¹, Hyun-Joon Ha¹
¹Department of Chemistry, Hankuk University of Foreign Studies

Corresponding Author

Hyun-Joon Ha

hjha@hufs.ac.kr

Citation

Srivastava, N., Ha, H.J. Preparation of Enantiopure Non-Activated Aziridines and Synthesis of Biemamide B, D, and *epiallo*-Isomuscarine. *J. Vis. Exp.* (184), e63705, doi:10.3791/63705 (2022).

Date Published

June 13, 2022

DOI

10.3791/63705

URL

jove.com/video/63705

Materials

Name	Company	Catalog Number	Comments
(2R)-1-[(1R)-1-Phenylethyl]-2-aziridinecarboxylic acid (-)-menthol ester, 98%	Sigma-Aldrich	57054-0	
(2S)-1-[(1R)-1-Phenylethyl]-2-aziridinecarboxylic acid (-)-menthol ester	Sigma-Aldrich	57051-6	
1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride	TCI	424331-25 g	CAS No: 25952-53-8
1,4-Dioxane	SAMCHUN	D0654-1 kg	CAS No: 123-91-1
1-Hydroxybenzotriazole hydrate	Aldrich	219-989-7-50 g	CAS No: 123333-53-9
2,6-Lutidine	Alfa Aesar	A10478-AP, 500 mL	CAS No: 108-48-5
Acetonitrile	SAMCHUN	A0127-18 L	CAS No: 75-05-8
Acetonitrile-d3	Cambridge Isotope Laboratories,	15G-744-25 g	CAS No: 2206-26-0
Aluminum chloride hexahydrate	Aldrich	231-208-1, 500 g	CAS No : 7784-13-6
Bruker AVANCE III HD (400 MHz) spectrometer	Bruker	NA	
Chloroform-d	Cambridge Isotope Laboratories,	100 g	CAS No: 865-49-6
Dichloromethane	SAMCHUN	M0822-18 L	CAS No: 75-09-2
Dimethyl sulfoxide-d6	Cambridge Isotope Laboratories,	25 g	CAS No: 2206-27-1
Ethanol	EMSURE	1009831000, 1L	CAS No: 64-17-5
Ethyl acetate	SAMCHUN	E0191-18 L	CAS No: 141-78-6
High resolution mass spectra/MALDI-TOF/TOF Mass Spectrometry	AB SCIEX	4800 Plus	High resolution mass spectra
JASCO P-2000	JASCO	P-2000	For optical rotation
Lithium aluminum hydride	TCI	L0203-100 g	CAS No: 16853-85-3
L-Selectride, 1 M solution in THF	Acros	176451000, 100 mL	CAS No: 38721-52-7
Methanol	SAMCHUN	M0585-18 L	CAS No: 67-56-1
N-[(9H-Fluoren-9-ylmethoxy)carbonyl]-β-alanine	TCI	F08825G-5 g	CAS No: 35737-10-1
N-Ethyl-diisopropylamine	Aldrich	230-392-0, 100 mL	CAS No: 7087-68-5

n-Hexane	SAMCHUN	H0114-18 L	CAS No: 110-54-3
Ninhydrin	Alfa Aesar	A10409-250 g	CAS No: 485-47-2
p-Anisaldehyde	aldrich	A88107-5 g	CAS No: 123-11-5
Phosphomolybdic acid hydrate	TCI	P1910-100 g	CAS No: 51429-74-4
Sodium azide	D.S.P	703301-500 g	CAS No: 26628-22-8
Sodium Hydride 60% dispersion in mineral oil	Sigma-Aldrich	452912-100 G	CAS No: 7646-69-7
Sodium hydroxide	DUKSAN	A31226-1 kg	CAS No: 1310-73-2
Sodium sulfate	SAMCHUN	S1011-1 kg	CAS No: 7757-82-6
Thin Layer Chromatography (TLC)	Merck	100390	
Tert-Butyldimethylsilyl trifluoromethanesulfonate, 98%	Aldrich	274-102-0, 25 g	CAS NO: 69739-34-0
Tetrahydrofuran	SAMCHUN	T0148-18 L	CAS No: 109-99-9
Triethylethylamine	DAEJUNG	8556-4400-1 L	CAS No: 121-44-8
UV light	Korea Ace Sci	TN-4C	254 nm
Zinc chloride, anhydrous, 98+%	Alfa Aesar	A16281-22100 g	CAS No : 7646-85-7