

protecting groups

selective
deprotection

cerium(III) chloride

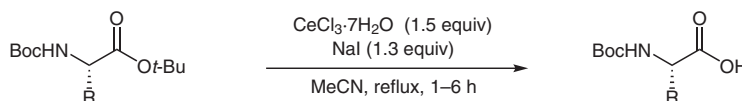
sodium iodide



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Selective Deprotection of *N*-Boc-Protected *tert*-Butyl Ester Amino Acids by the CeCl₃·7H₂O–NaI System in Acetonitrile
J. Org. Chem. **2001**, *66*, 4430–4432, DOI: 10.1021/jo010010y.

Selective Deprotection of *tert*-Butyl Ester Groups in *N*-Boc-Protected Amino Acid *tert*-Butyl Esters



Entry	Substrate	Product	Yield	Entry	Substrate	Product	Yield
1			75%	7			80%
2			99%	8			75%
3			87%	9			87%
4			78%	10			79%
5			80%				
6			89%				

Significance: Most commonly in amino acids, the amine group is protected with a Boc group and the carboxylic acid functionality is protected with a *tert*-butyl group. Hence, selective deprotection of a *tert*-butyl ester group in presence of *N*-Boc is highly challenging. In 2001, the authors developed a cerium(III) chloride and NaI-mediated selective deprotection of *tert*-butyl esters in the presence of *N*-Boc-protected amino acids.

Comment: Selective deprotection of *tert*-butyl esters in the presence of *N*-Boc-protected amino acids with the help of cerium(III) chloride and NaI proceeded smoothly to afford the desired products in good yield. This protocol is practically very simple, cost-effective, and showcases a broad functional group tolerance.