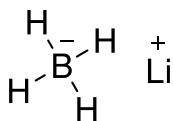


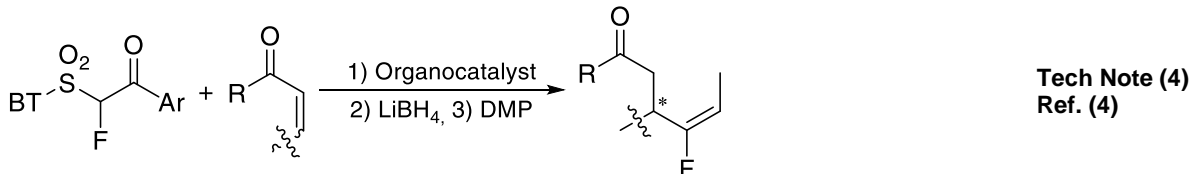
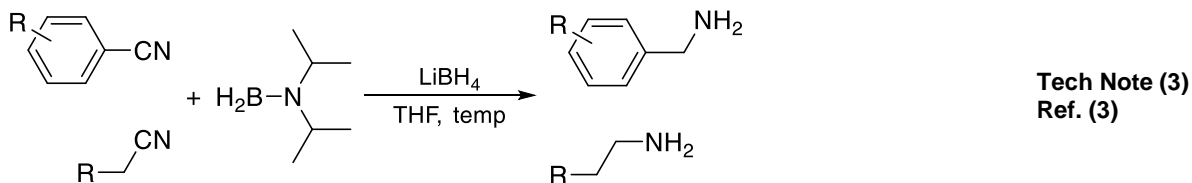
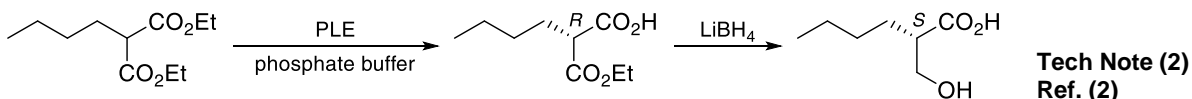
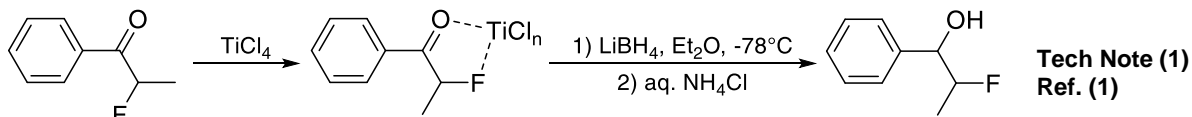
Catalog # 03-1450 VENPURE™ Lithium borohydride 10%, in tetrahydrofuran

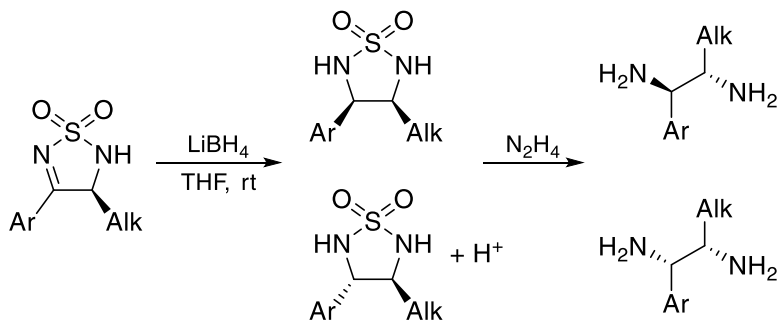


VENPURE lithium borohydride solution is an effective chemoselective reducing agent especially for esters, lactones, primary amides, and epoxides in the presence of nitro groups, carbamic acids, nitriles, alkyl halides and secondary/tertiary amides. This compound offers advantages over other reducing agents such as sodium borohydride due to its high solubility in ethers, stronger reducing power while safer to handle than lithium aluminum hydride. It is highly soluble in tetrahydrofuran. Its reducing power can be significantly enhanced by addition of stoichiometric methanol without impacting its selectivity for functional groups

Technical Notes:

1. Used in chelation-controlled diastereoselective reduction of α -fluoroketones.
2. Enantioselective enzymatic hydrolysis of diethyl butylmalonate with pig liver esterase (PLE) in phosphate buffer afforded the 2-butyl-propanedioic acid monoethyl ester.
3. Catalyst for the aliphatic and aromatic nitriles to primary amines with diisopropylaminoborane.
4. Reductant used in asymmetric organocatalytic monofluorovinylations.
5. Used in enantioselective synthesis of 3,4-Disubstituted *cis*- and *trans*-1,2,5-thiadiazolidine-1,1-dioxides as precursors for chiral 1,2-diamines.





Tech Note (5)
Ref. (5)

References:

1. [J. Am. Chem. Soc. 2005, 127, 11896](#)
2. [Org. Process Res. Dev. 2007, 11, 90](#)
3. [J. Org. Chem. 2009, 74, 1964](#)
4. [J. Am. Chem. Soc. 2011, 133, 7398](#)
5. [Org. Lett. 2013, 15, 800](#)



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