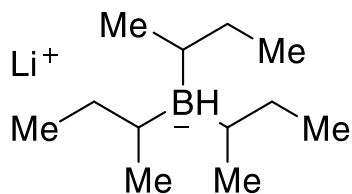


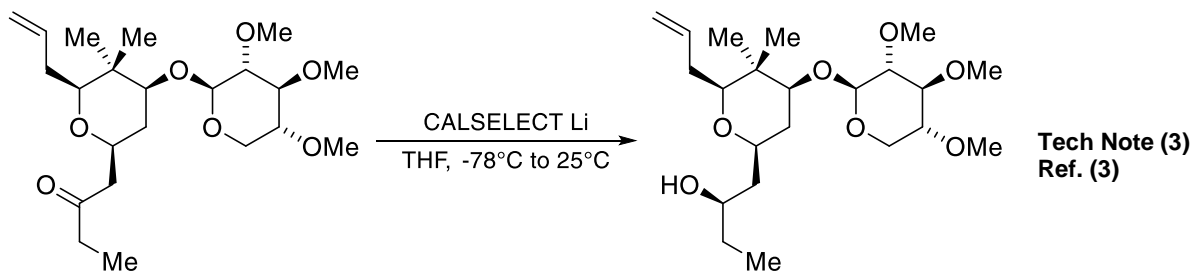
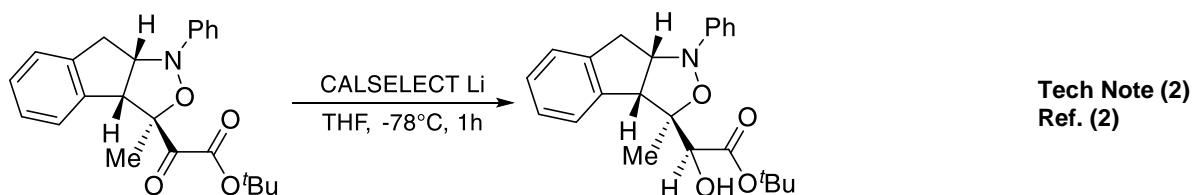
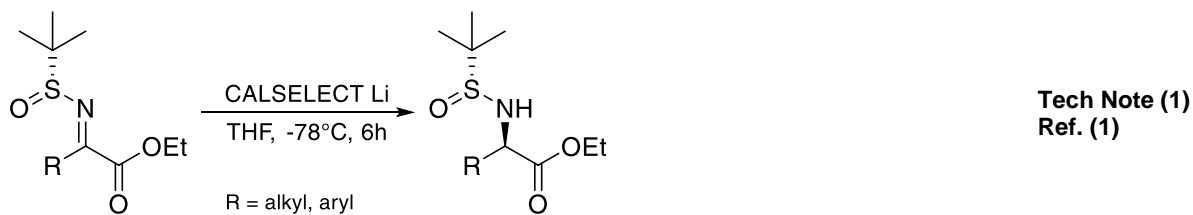
Catalog # 03-1400 CALSELECT™ Lithium tri-sec-butylborohydride, 1M in tetrahydrofuran, CALSELECT Li

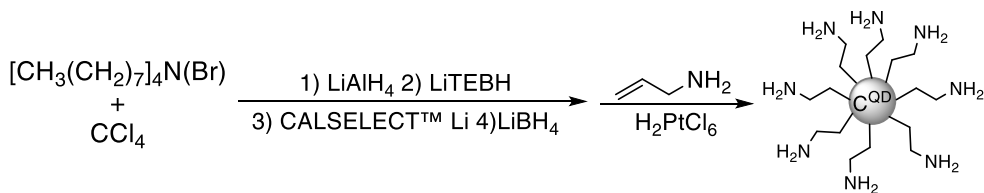


Alkali metal trialkylborohydrides have been used in numerous stereoselective and regioselective reductions. The strength and reactivity of these reducing agents varies with the steric bulk of the alkyl groups and the alkali metal ion.

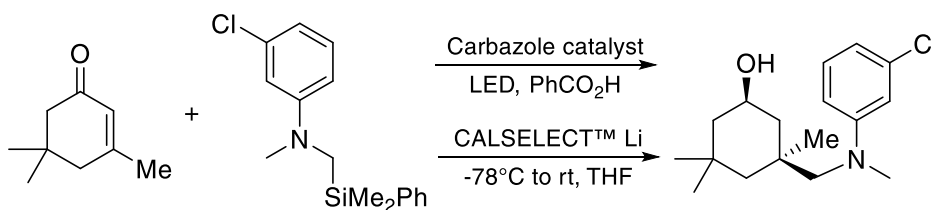
#### Technical Notes:

1. Used for asymmetric synthesis of  $\alpha$ -amino acids by reduction of *N*-*tert*-butanesulfinyl ketimine esters
2. Reductant used in the synthesis of  $\alpha$ -hydroxy isoxazolidine ester with subsequent formation of  $\alpha,\beta$ -dihydroxy- $\delta$ -amino acid
3. Used in the total synthesis of Cyanolide A
4. Reductant used in the size controlled synthesis of carbon quantum dots
5. Reagent used for stereoselective light driven preparation of *trans*-alcohol, the epimer of a compound useful for the treatment of influenza
6. Used in the stereoselective reduction of the carbonyl groups in  $\beta$ -indolyl cyclopentanones providing the corresponding cyclopentanol
7. Used in enantioselective total synthesis of (-)-myrifabral A and B

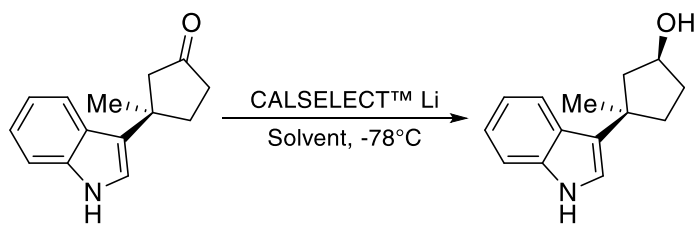




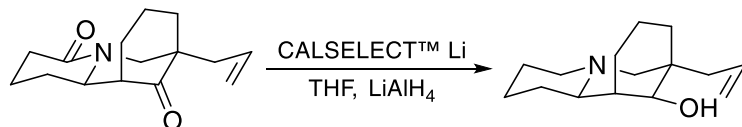
**Tech Note (4)**  
**Ref. (4)**



**Tech Note (5)**  
**Ref. (5)**



**Tech Note (6)**  
**Ref. (6)**



**Tech Note (7)**  
**Ref. (7)**

## References:

1. [J. Org. Chem. 2011, 76, 3409](#)
2. [Chem. Sci., 2013, 4, 1281](#)
3. [Angew. Chem. Int. Ed. 2013, 52, 4470](#)
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5. [Nat. Commun. 2018, 9, 1](#)
6. [Org. Lett. 2019, 21, 3563](#)
7. [Chem. Sci., 2020, 11, 10802](#)