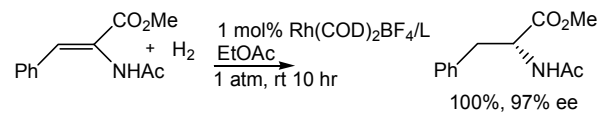


Catalog #15-5151 (11aS)-(-)-10,11,12,13-Tetrahydroindeno[7,1-de:1',7'-fg][1,3,2]dioxaphosphocin-5-dimethylamine, min. 98% (S)-SIPHOS

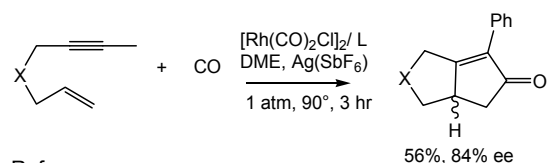
Note: Spiro Monophosphite and Monophosphoramidite Ligand Kit component.

Technical Notes:

1. Monodentate chiral spirobiindane phosphoramidite ligand for rhodium catalyzed asymmetric hydrogenation of  $\alpha$ -dehydroamino esters and enamides.
2. Chiral ligand for rhodium catalyzed asymmetric Pauson-Khand reaction.



**Tech. Note (1)**  
**Ref. (1-3)**



**Tech. Note (2)**  
**Ref. (4)**

References:

1. *J. Org. Chem.*, **2004**, *69*, 4648.
2. *Angew. Chem., Int. Ed.*, **2002**, *41*, 2348.
3. *Chem. Comm.*, **2002**, 480.
4. *Adv. Synth. Catal.*, **2005**, *347*, 759.