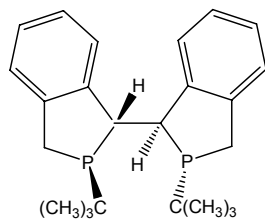


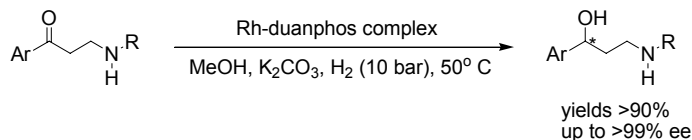
Catalog # 15-1060 (1R,1'R,2S,2'S)-(+)-2,2'-Di-t-butyl-2,3,2',3'-tetrahydro-1,1'-bi-1H-isophosphindole, min. 98%
(R,R,S,S)-DUANPHOS



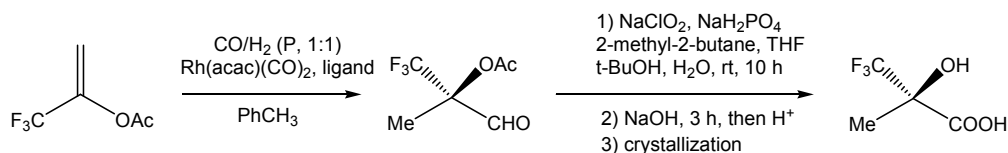
Note: Sold in collaboration with Chiral Quest for research purposes only. Patent pending, PCT/US02/35788. Chiral Quest Catalyst and Ligand Toolbox Kit component.

Technical Notes:

1. As a highly electron-donating and conformationally rigid ligand, the rhodium complex of DuanPhos has exhibited remarkably high enantioselectivities and reactivities for the hydrogenation of a variety of functionalized olefins.
2. Rhodium/DUANPHOS catalyst used in the synthesis of 2-trifluoromethyl lactic acid by asymmetric hydroformylation.



Tech. Note (1)
Ref. (1)



Tech. Note (2)
Ref. (2)

References:

1. *Angew. Chem. Int. Ed.*, **2005**, *44*, 1687.
2. *J. Org. Chem.*, **2013**, *78*, 3429.