Synthesis of PRC200-SS

Significance: PRC200-SS is a serotonin–norepinephrine–dopamine reuptake inhibitor and a lead compound for the treatment of depression. This short and efficient synthesis of PRC200-SS features the asymmetric addition of the β-amino alkényl zinc reagent to benzaldehyde in the presence of the chiral chaperone E.

Comment: The β-hydroxy (E)-enamine derivative F underwent a hydroxyl-directed diastereoselective hydrogenation via conformation G to give the syn-1,2-disubstituted-1,3-amino alcohol H in moderate yield.

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