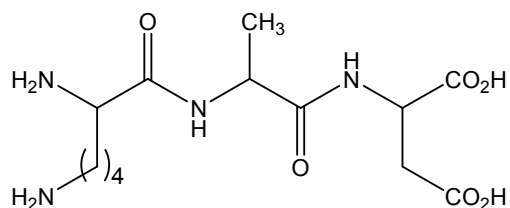


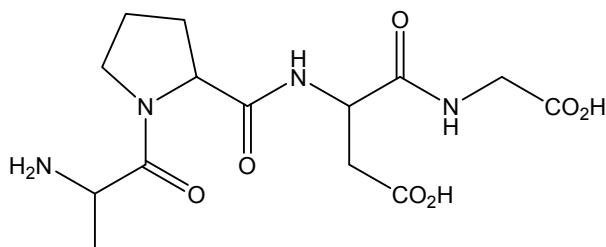
Peptide synthesis problems

In each case devise a synthesis of the peptide starting from its constituent, unprotected amino acids. Give reagents for your synthesis and explain your strategy. Mechanisms are not required.

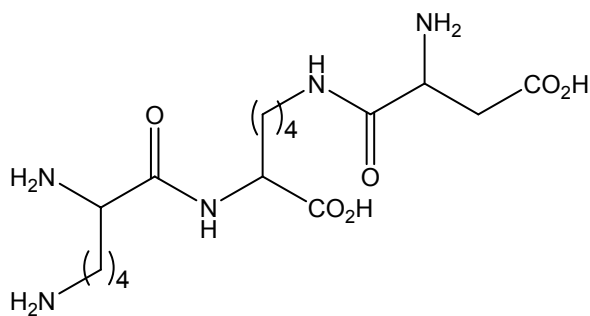
(a) Lys.Al ϵ .Asp



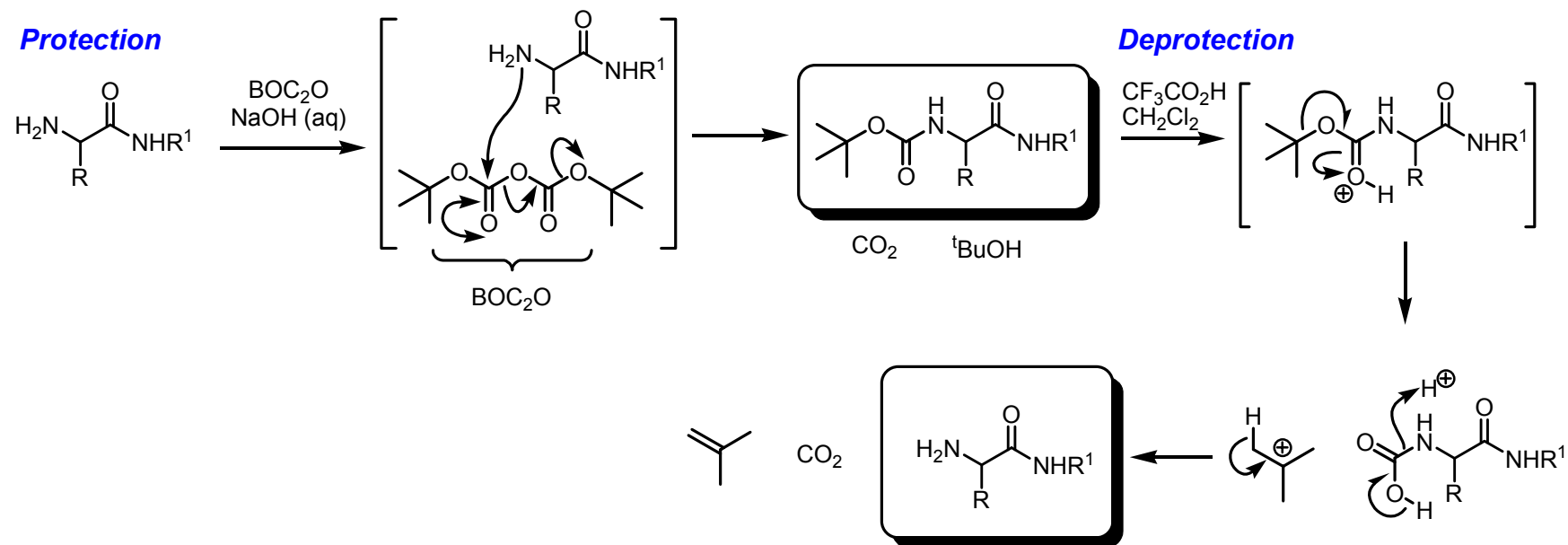
(b) Ala.Pro.Asp.Gly



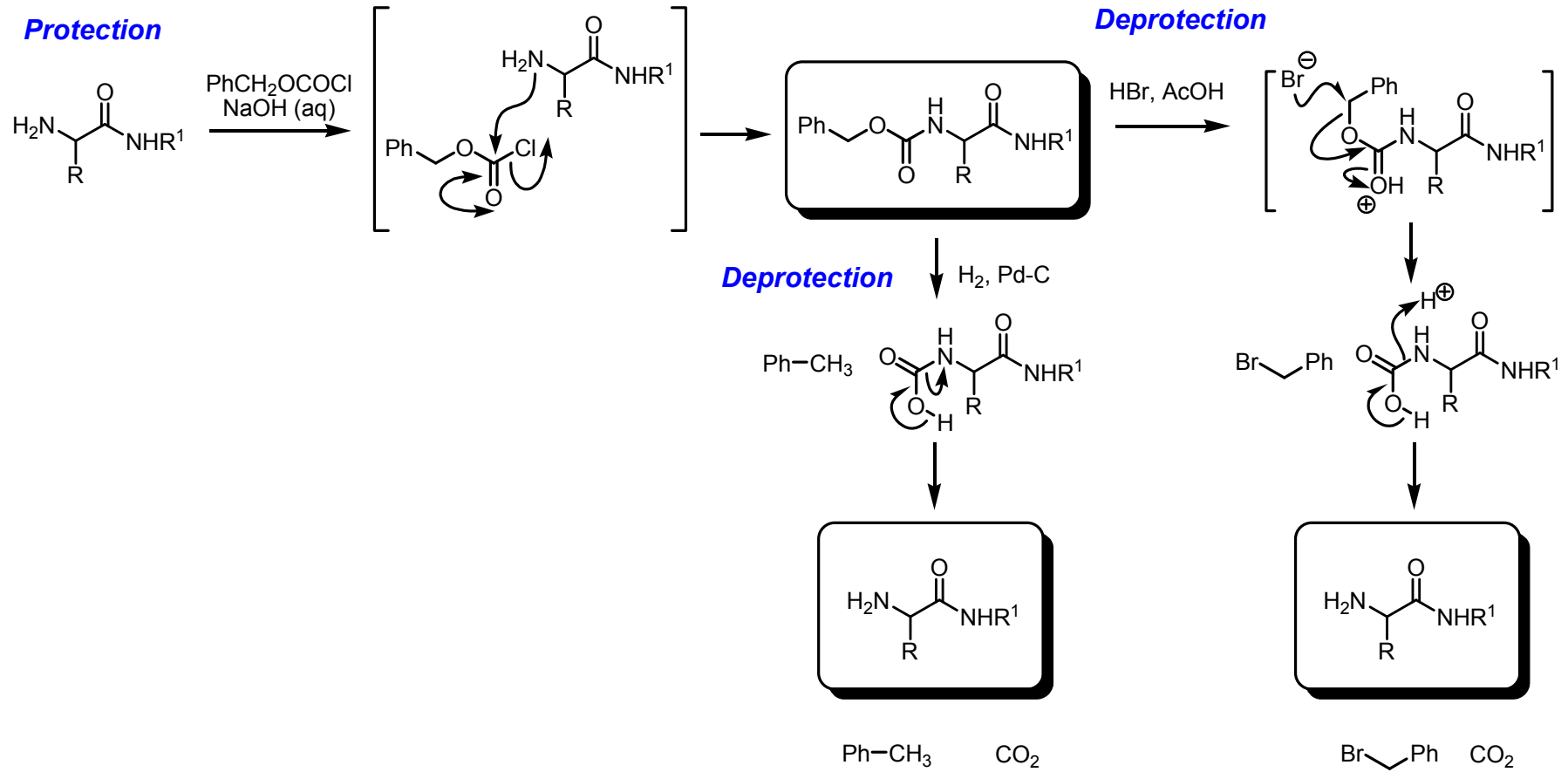
(c) Lys.Lys($\epsilon \rightarrow \alpha$)Asp



Protecting Groups - *tert*-Butyloxycarbonyl (BOC) group

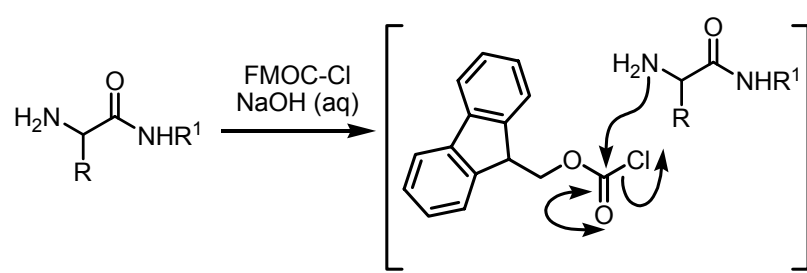


Protecting Groups - Benzyloxycarbonyl (Z) group

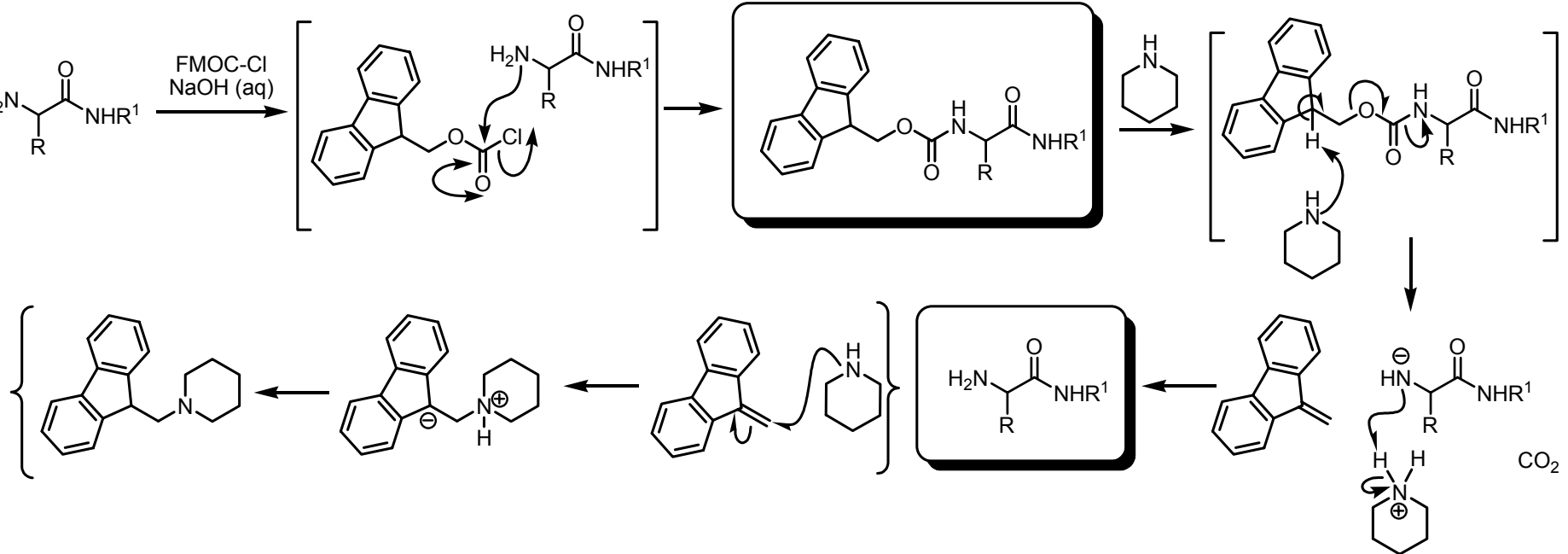


Protecting Groups - Fluorenylmethoxycarbonyl (Fmoc) group

Protection

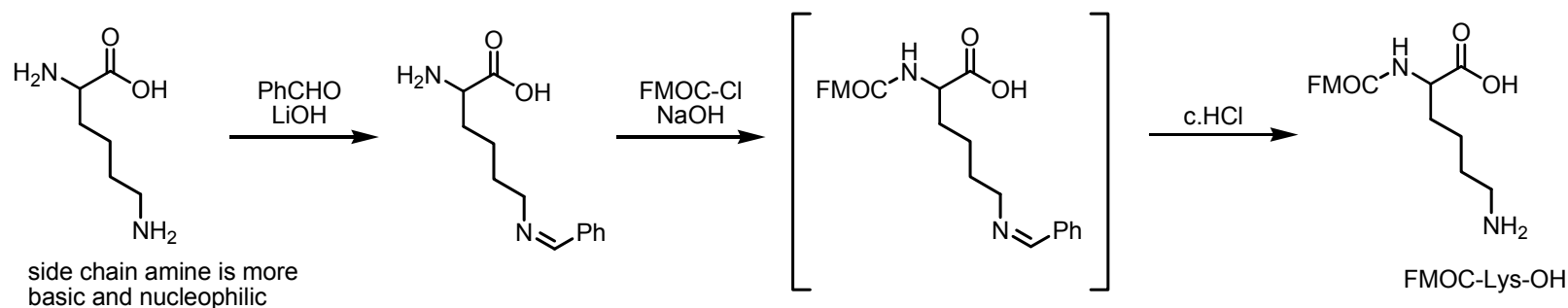
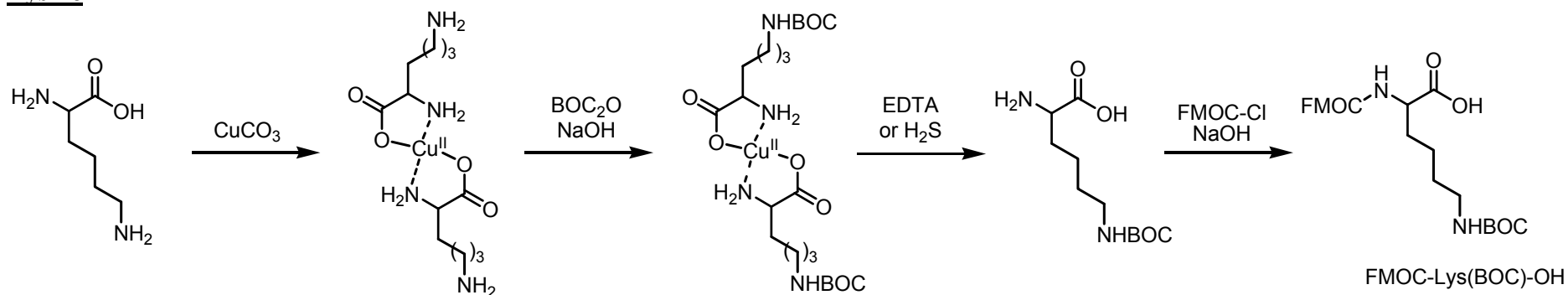


Deprotection



Selective manipulation of diamino and dicarboxylic amino acids

Lysine



Glutamic and aspartic acid

