

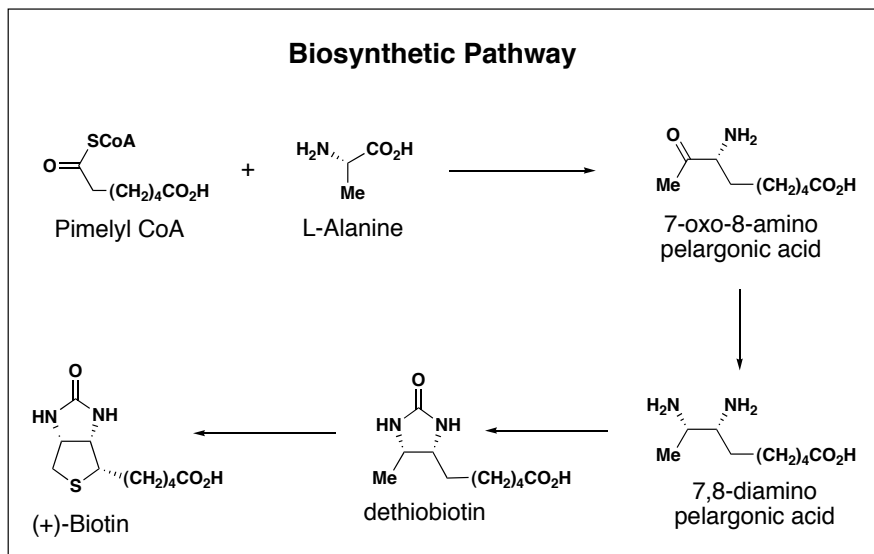
-Biotin (or Vitamin H) is the active cofactor of pyruvate carboxylase; responsible for anaplerotic conversion of pyruvate to oxaloacetate; rejuvenates the Krebs Cycle

-Important additive to poultry and swine food stocks

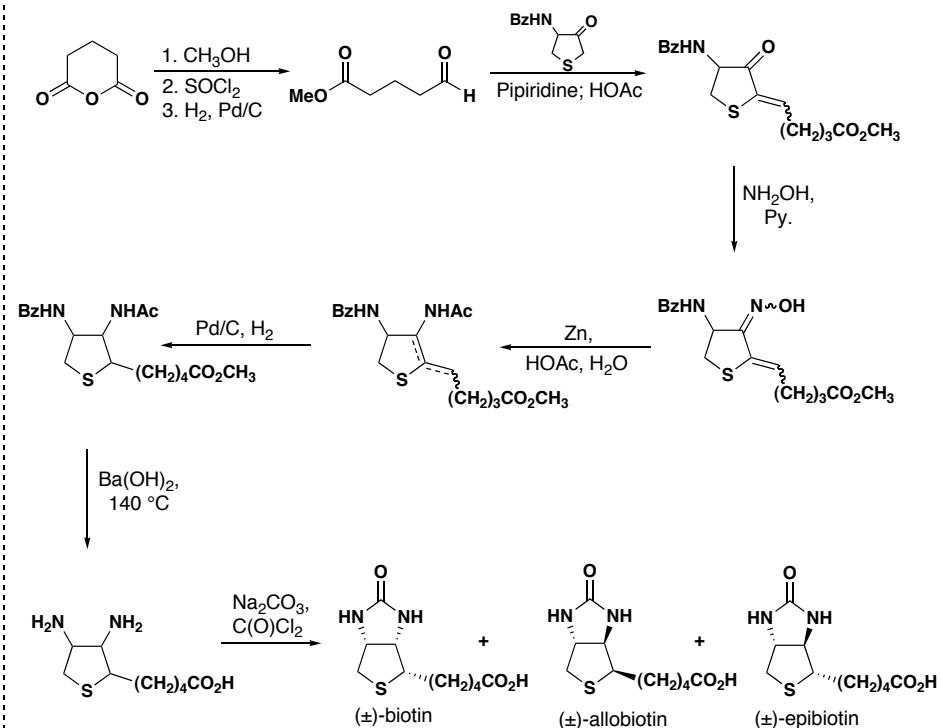
-Contained in human diet, but not essential; biosynthetically available from colonic bacteria

-For a comprehensive review, see: De Clerq, P. *Chem. Rev.* **1997**, *6*, 1755.

-For the most recent synthesis, see: Seki, M., *et al*, *Chem. Eur. J.* **2004**, *10*, 6102.

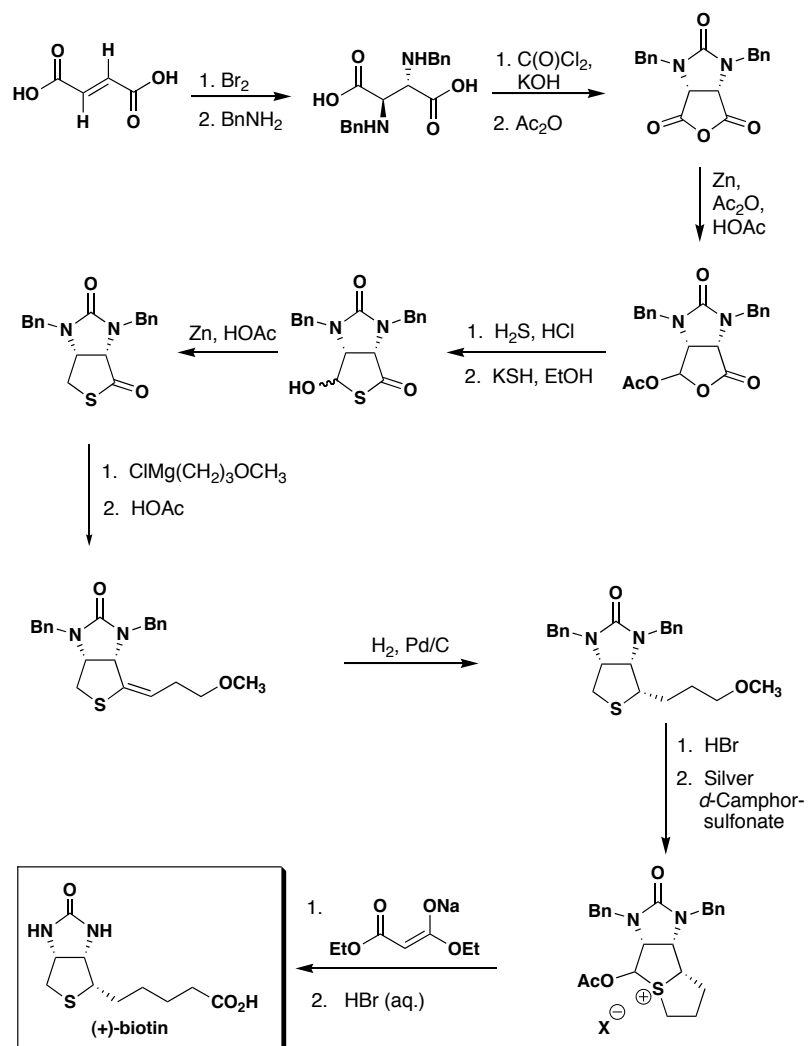


**Wolf, Harris
First synthesis of (±)-biotin, 1943**



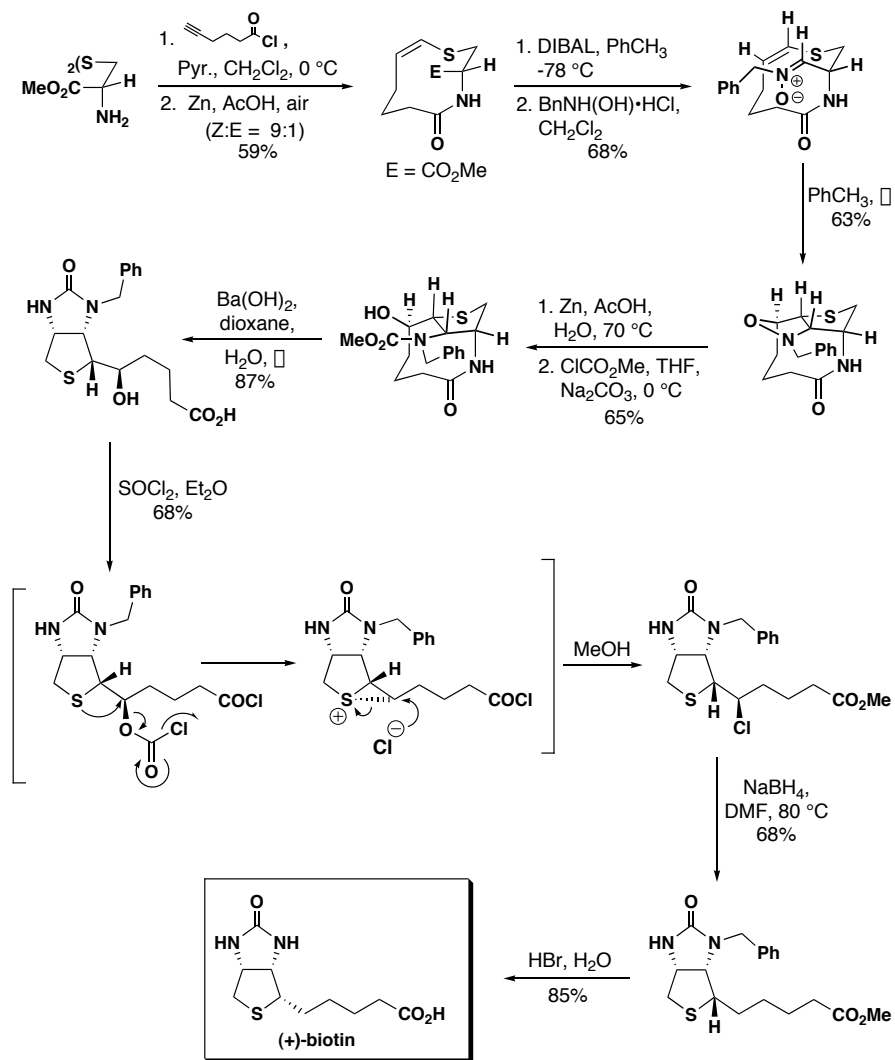
Harris, J. A.; Wolf, D. E.; Mozingo, R.; Folkers, K. *Science* **1943**, *97*, 447.

Goldberg, Sternbach
First synthesis of (+)-biotin, 1946



Goldberg, M. W., Sternbach, L. H. US Pat. 2,489,238, Nov. 22, 1949

Hoffmann-La Roche
Synthesis of (+)-biotin, 1982



Baggiolini, E. G., et al., *J. Am. Chem. Soc.*, **1982**, *104*, 6460.

