

Abstract

Accumulating evidence points to chloroplasts as the site of nitrite and sulfate reduction and incorporation into carbon skeletons [1]. Furthermore, several enzymes of aspartate-family amino acid biosynthesis recently have been localized in plastids. These are : aspartate kinase [2] , homoserine dehydrogenase [3] , diaminopimelate decarboxylase [4] , acetolactate synthetase [5] and homocysteine-dependent 5-methyltetrahydropteroyl glutamate transmethylase [6]. In whole plants Lys and/or Thr have been shown to regulate the production of the aspartate-derived amino acids [7]. Biosynthesis of this family of amino acids and its regulation in isolated chloroplasts has, however, received little attention. In this report we describe the biosynthesis of amino acids in pea chloroplasts from labeled aspartate and sulfate.