

# Download Glutamyl Cycle

a proposed pathway for the glutathione-dependent transport of certain amino acids (most notably l-cystine, l-methionine, and l-glutamine) and dipeptides into certain cells; this cycle requires the formation of  $\gamma$ -glutamyl amino acids and  $\gamma$ -glutamyl dipeptides as well as a protein for the translocation of these di- and triisopeptides into the ...The  $\gamma$ -glutamyl cycle has properties that fulfill the requirements of an amino acid transport system. Thus,  $\gamma$ -glutamyl transpeptidase may function in translocation and  $\gamma$ -glutamylcysteine synthetase and glutathione synthetase may catalyze energy-requiring „recovery” steps in transport. These and other considerations suggest that glutathione serves a carrier function in amino acid transport. Gamma-glutamyltransferase (also  $\gamma$ -glutamyltransferase, GGT, gamma-GT; EC 2.3.2.2) is a transferase (a type of enzyme) that catalyzes the transfer of gamma-glutamyl functional groups from molecules such as glutathione to an acceptor that may be an amino acid, a peptide or water (forming glutamate).VOL. 67, 1970 GAMMA GLUTAMYL CYCLE 1249  $\gamma$ -Glutamyl cyclotransferase is also widely distributed; it is found to a considerable extent in kidney, and a very highly purified preparation has been ob-