Glutamine Synthetase and Glutamate Synthase Pathway hydroxymethylglutaryl-CoA reductase (NADPH) activity glutamate-5-semialdehyde dehydrogenase activity catalytic activity Adjusted p-value glutamate 5-kinase activity 0.04 gamma-glutamylcyclotransferase activity 0.03 0.02 0.01 glutamate synthase (NADH) catalysis of the reaction: 2 L-glutamate + NAD+ = 2-oxoglutarate + L-glutamine + H+ + NADH activity **Number of Genes** 50 glutamate dehydrogenase [NAD(P)+] activity 100 glutamate synthase activity 150 catalysis of the formation of L-glutamine and 2-oxoglutarate from L-glutamate 200 glutamine synthetase activity catalysis of the reaction: ATP + L-glutamate + NH4+ = ADP + H+ + L-glutamine + phosphate sulfur compound metabolic glutathione biosynthetic process process

Analysis