Abstract
Glycine is a well-documented cytoprotective agent and protects mammalian intestine against ischemia-reperfusion injury, irradiation and experimentally induced colitis. The specific glycine transporter GLYT1 is found throughout the human intestine where it is responsible for some 30—50% of glycine uptake into intestinal epithelial cells across the basolateral membrane and appears to function to maintain glycine supply to enterocytes and colonocytes. This paper reviews current knowledge of GLYT1 and presents recent evidence supporting its essential role in glycine mediated cytoprotection in intestinal absorptive cells. Regulatory mechanisms involved in intestinal expression of GLYT1 are discussed and the potential of glycine for use as an anti-inflammatory, protective agent in the management of inflammatory bowel disease examined.