Glycylglutamine (GQ) is an endogenous β-endorphin-derived dipeptide that exhibits antioxidative, cardioprotective, anti-inflammatory, and neuromodulatory activities. In animal models of burn injury, GQ decreases serum creatine kinase, lactate dehydrogenase, and lactic acid and increases serum ATP and glutathione, decreasing myocardial damage and improving cardiac contractility. In animal models of liver transplant, GQ increases levels of secretory IgA (sIgA) and decreases levels of TNF-α, improving microvilli structure and intestinal barrier function. Additionally, GQ inhibits IL-1β-induced thermogenesis and prostaglandin E2 (PGE2) production, suppressing the development of fever in vivo. In animal models of opioid use, GQ inhibits opioid-induced dopamine signaling, preventing reward and suppressing development of tolerance and withdrawal. GQ also inhibits nicotine-induced reward signaling in conditioned place preference (CPP) paradigms as well as development of nicotine withdrawal.

References


Caution: This product is intended for laboratory and research use only. It is not for human or drug use.