S-Nitroglutathione acts as a NO donor, displaying antioxidative, bronchodilatory, vasodilatory, and anticancer activities. In the vasculature, S-nitroglutathione attenuates Pannexin-1 channel currents and ATP release. In epithelial cells from cystic fibrosis patients, S-nitroglutathione promotes maturation of the defective CF transmembrane conductance regulator (CFTR), increasing cAMP-induced Cl- efflux and improving defective Cl- transport. Donation of NO to actin results in less effective polymerization but produces a vasodilatory effect. Additionally, donation of NO to proteins involved in insulin signal transduction improves insulin resistance. S-Nitroglutathione also stimulates activation of ERK 1/2 and p38, inducing NO-related apoptosis in colon cancer cells; in this model, glutathione and superoxide dismutase are likely to play a role as well.

References


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