N-Acetyl-L-cysteine exhibits antioxidative, mucolytic, anti-inflammatory, antiviral, antipsychotic, and neuromodulatory activities. N-Acetyl-L-cysteine has clinically been used to treat acetaminophen overdose; it is occasionally commercially sold as a supplement. N-Acetyl-L-cysteine acts as a scavenger of ROS, decreasing oxidative stress in a variety of models. In vitro, this compound also inhibits TNF-α-induced increases in IL-6 release and NF-κB activation. N-Acetyl-L-cysteine also inhibits hepatitis B virus replication by suppressing viral assembly. Clinically, N-acetyl-L-cysteine displays potential benefit in the treatment of various mood disorders as it modulates reward and reinforcement signaling.