

Amplite™ Colorimetric Superoxide Dismutase (SOD) Assay KitCatalog number: 11305
Unit size: 200 Tests**Product Details**

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	6 months upon receiving

Applications

Superoxide dismutases (SOD) are a class of enzymes that catalyze the dismutation of superoxide into oxygen and hydrogen peroxide. Superoxide is one of the main reactive oxygen species in cells. It is a substantial contributor of pathology associated with neurodegenerative diseases, ischemia reperfusion injury, atherosclerosis and aging. SODs are an important antioxidant defense in nearly all cells exposed to superoxide radicals. In fact, mice lacking SOD1 develop a wide range of pathologies, including hepatocellular carcinoma, an acceleration of age-related muscle mass loss, an earlier incidence of cataracts and a reduced lifespan. Overexpression of SOD protects murine fibrosarcoma cells from apoptosis and promotes cell differentiation. The Amplite™ Colorimetric Superoxide Dismutase (SOD) Assay Kit provides a quick and sensitive method for the measurement of SOD activity in solutions. In the assay, xanthine is converted to superoxide radical ions, uric acid and hydrogen peroxide by xanthine oxidase (XO). Superoxide reacts with ReadView™ SOD560 to generate a product that absorbs around 560 nm. SOD inhibits the reaction of ReadView™ SOD560 with superoxide, thus reduces the absorption at 560 nm. The reduction in the absorption of ReadView™ SOD560 at 560 nm is proportional to SOD activity. The kit can be performed in a convenient 96-well or 384-well microtiter-plate format.