

BIOXYTECH® SOD-525™

Spectrophotometric Assay for Superoxide Dismutase For Research Use Only. Not For Use In Diagnostic Procedures.

Catalog No. 21010

INTRODUCTION

Superoxide dismutases (SOD) are metalloenzymes which catalyze the dismutation of superoxide ion into oxygen and hydrogen peroxide, according to the following reaction:



Three classes of SODs have been described, each characterized by the catalytic metal at the active site, namely, Cu/Zn-SOD, Mn-SOD and Fe-SOD. Cu/Zn enzymes are found primarily in eukaryotes, Fe-SOD is found mainly in prokaryotes and Mn-SOD crosses the entire range from prokaryotes to eukaryotes. The Cu/Zn-SOD is localized in the cytosol and nucleus, while Mn-SOD is located in the mitochondrial matrix. It has been widely recognized that such enzymes provide a defense system which is essential for the survival of aerobic organisms (Beyer, 1991)

Catalog Number:	21010
Methodology:	Colorimetric
Specimen Requirements	SOD solutions, homogenized tissue or erythrocytes
Specificity	Assay is specific for SOD activity
Sensitivity	0.2 SOD-525 Units/mL
Expected Values	Normal erythrocyte lysates: Human 80-100 U-525 Rat 115-135 U-525
Tests per Kit	100 tests
Storage and Stability	Six months from the date of manufacture when stored at 2° - 8° C
Kit Contents	<ul style="list-style-type: none">• 1 X 3.3 mL chromogenic reagent• 1 X 3.3 mL mercaptan scavenger• 1 x 100 ml buffer