

## 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)

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