

superoxide radical and hydrogen peroxide is essential for chloroplasts to maintain their ability to fix carbon dioxide, because several enzymes in the carbon dioxide reduction cycle are sensitive to active oxygen¹⁵. The formation of SOD III, IV and V isozymes and high activity of SOD II from the fourth day of germination suggest that these enzymes may be associated with chloroplast and further confirmed by localization of these enzymes by polyacrylamide gel electrophoresis from the isolated chloroplast.

Cyanide at 2 mM concentration completely inhibits Cu-Zn superoxide dismutases⁵. The susceptibility of SOD II, III, IV and V towards cyanide suggests that these four are Cu-Zn enzymes. The cyanide insensitive SOD II, was not affected by hydrogen peroxide but was inactivated by chloroform-ethanol mixture treatment indicating that it is a Mn enzyme¹⁶. The low activity of SOD I (figure 2) could be attributed to the sensitivity of this enzyme towards organic solvent-acetone¹⁷. The intracellular localization of Mn SOD in mitochondria agrees with earlier studies on bajra³ and mung bean⁴.

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ANNOUNCEMENTS

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The above symposium will be held at Trivandrum during June 1988. For details please contact: C. Balagopalan, Organizing Secretary, C/o

Fermentation Section, Regional Research Laboratory, Trivandrum 695 017.

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The workshop on "Implementation of reservation directives for SC/ST employees in Universities and Educational Institutions" will be held during April-9, 1988 at New Delhi. Details can be had from Shri

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