Absorption spectra of the culture supernatants showed that supplementation of dichromate in iron-sufficient minimal medium resulted in the production of siderophores. This indicated that dichromate either interferes in iron metabolism or creates artificial iron-deficiency. SDS-PAGE of the extracellular proteins revealed that secretion of a 68 kDa protein was inhibited and that of a 55 kDa protein increased when King's A medium was supplemented with either dichromate or ferric chloride. But, when dichromate and ferric chloride were supplemented together, 68 kDa band reappeared and 55 kDa band disappeared. A 36 kb plasmid from this bacterium has been purified and partially mapped for restriction endonuclease sites.

EBT050

STUDIES OF MnO_2 -REDUCTASE ACTIVITY FROM INDUCED *ASPERGILLUS NIGER* I

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Aspergillus niger I has been successfully induced for the manganese (Mn) leaching from pyrolusite ore. To probe into mechanism of the process at cellular level, different cell-free- extracts (CES) (induced for different intervals) were tested. In phosphate buffer and the ore system, this *in vitro* Mn leaching could be carried out to yield maximum 360 uM of Mn per day. This induced CE containing MnO_2 - Reductase Activity was further studied in detail. Contribution of an electron acceptor like NAD, electron donor like NADH and that of the induced extracellular fluid were also examined. Kinetic studies revealed the vital conditions towards the optimization of the process.

EBT051

CYCLOPHOSPHAMIDE INDUCED LUNG INJURY IN RATS

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The present study evaluated the changes in lavage fluid biochemical constituents and lavage cell functions after cyclophosphamide exposure to rats. Biochemical analysis revealed dose related increases in the lung lavage fluid total protein, albumin, lactate, angiotensin converting enzyme, lactate dehydrogenase, N-acetyl glucosaminidase, acid phosphatase, alkaline phosphatase and lipid peroxidation product levels on days 2,3,5 and 7 after drug insult. In contrast, reduced levels of glutathione and ascorbic acid were observed. Lavage cell acid hydrolases increased during the same period. Thus measurements of pulmonary changes by analysing lavage fluid biochemical indicators seem to be a useful marker for assessing the early onset and development of cyclophosphamide induced lung injury.