



	Experiment title: SSAO semicarbazide-sensitive amine oxidase. BAG: Uppsala (II)	Experiment number: MX-133
Beamline: ID14-EH3	Date of experiment: from: 5 July 2003 to: 6 July 2003	Date of report: 30 August 2004
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Report:

Human SSAO (semicarbazide sensitive amine oxidase) is a plasma membrane-anchored monoamine oxidase found in vascular and visceral smooth muscle cells, endothelial cells and adipocytes. A soluble circulating form of SSAO also exists. This enzyme catalyses the oxidation of primary amines to the corresponding aldehyde, hydrogen peroxide and ammonia. The resulting aldehydes from the deamination reaction, *e. g.* formaldehyde and methylglyoxal, are toxic. These reaction products are thought to contribute to the damage seen in the vasculature of diabetic patients, shown to have elevated levels of SSAO activity. Further the expression of SSAO is induced at sites of inflammation and it has been shown that SSAO mediates the lymphocyte entry to inflamed tissues.

A first native dataset was collected to 4.5 Å. Unfortunately the data was not good enough to solve the structure by molecular replacement.