



	Experiment title: SSAO semicarbazide-sensitive amine oxidase. BAG: Uppsala (II)	Experiment number: MX-133
Beamline: ID14-EH2	Date of experiment: from: 20 September 2003 to: 21 September 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 native dataset was collected to 3.0 Å. The structure could be solved with this data by molecular replacement. However, the maps were not good enough to build a complete model.