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The in Vitro Effects of Dexamethasone on Sheep Lens Glucose-6-Phosphate Dehydrogenase

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Abstract: Glucose-6-phosphate dehydrogenase (G6PD) enzyme was purified from sheep lenses, and the in vitro effects of dexamethasone on the enzyme's activity were investigated. Sheep lens glucose-6-phosphate dehydrogenase was purified 10,000-fold by using ammonium sulphate fractionation and 2',5'-ADP-Sepharose 4B affinity gel chromatography for a yield of 83.8% and a specific activity of 7.6 EU/mg protein. Enzyme activity was determined by Beutler's method. Dexamethasone strongly inhibited the enzyme under in vitro conditions. The I_{50} value of the dexamethasone was 3.05 mM.

Key Words: Sheep eye lens, dexamethasone, glucose-6-phosphate dehydrogenase

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