

Varandani et al. 1974 demonstrated that "The changes in insulin degradation are due to adaptive changes in hepatic GITE level and the concentrations of GITE in rat liver are regulated by insulin through a feedback mechanism".

Further evidence provides that the GITE activity is the primary determination of the rate of hepatic insulin metabolism. It must be assumed, however, that insulinase and lysosomal enzymes are involved in the process of insulin degradation.

Bacitracin is commonly used in studies on insulin action. Bacitracin, as a cyclic polypeptide derived from *Bacillus Licheniformis*, is widely used as an antibiotic and as a proteinases inhibitor to inhibit the degradation of insulin and glucagon in studies on hormone-receptor binding and action (Juul & Jones, 1982). Bacitracin has been used in high concentration (0.6-1.2mM) to inhibit extracellular degradation in order to study the internalization and processing of insulin by hepatocytes (Carpentier et al., 1979).

Also in high concentration of Bacitracin, it was used to inhibit the ability of purified GITE to split insulin into its constituent A and B chains. Kinetic studies indicated that this inhibition was by a complex mechanism that decreased both the Vmax and affinity of the enzyme for insulin (Roth, 1981). In view of its wide usage at high concentrations in studies on insulin binding and action, the current study will examine the inhibitory effects of bacitracin on isolated rat hepatocytes at concentrations currently used in insulin studies.