

How is insulin made? Insulin also inhibits fatty acid release by hormone-sensitive lipase in adipose tissue.[6] Insulin designed in the lab typically involves a process called recombinant DNA technology: Today, insulin is manufactured using genetically engineered bacteria. In addition, cortisol, glucagon and growth hormone antagonize the actions of insulin during times of stress. With advances in genetic technology, scientists were able to isolate the human insulin gene. Two enzymes are used for this process, restriction enzymes, which can cut DNA at specific sequences, and DNA ligase, which can paste DNA sequences together. Genetic engineering is the process of modifying DNA sequences. The insulin gene was then cut and paste into a smaller circular piece of DNA called a plasmid. The discovery of these enzymes allowed for great advancements in genetic engineering.