[ABSTRACT]

The present invention relates to a composition for the prevention or treatment of diabetes including a long-acting insulin conjugate and a long-acting insulinotropic peptide conjugate, and a method for treating diabetes. More specifically, combination administration of the long-acting analogue conjugate and the long-acting insulinotropic peptide conjugate inhibits weight gain due to administration of insulin, and vomiting and nausea due to administration of the insulinotropic peptide, and also reduces the required doses of insulin, thereby remarkably improving drug compliance. In addition, the present invention relates to administering a pharmaceutical composition for reducing side effects of pancreatic beta cells in diabetic patients, including a long-acting insulin analogue conjugate and a long-acting insulinotropic peptide analogue conjugate, and to a method for reducing side effects of pancreatic beta cells in diabetic patients, including the step of administering the composition. Specifically, the present invention is characterized in reducing side effects such as abnormality in the function of pancreatic beta cells associated with the development of diabetes, reduction in the pancreatic beta cell mass, lipotoxicity, or glucotoxicity.