

【ABSTRACT】

NOVEL USE OF 3-(4-(BENZYLOXY)PHENYL)HEX-4-INOIC ACID

DERIVATIVE

The present invention provides a use of a 3-(4-(benzyloxy)phenyl)hex-4-inoic
5 acid derivative for protecting pancreatic beta cells. The 3-(4-(benzyloxy)phenyl)hex-
4-inoic acid derivative according to the present invention resolves a side effect in
which conventionally developed agents for treating diabetes induce apoptosis of
pancreatic beta cells through excitotoxic reactions, thereby causing a secondary
failure in which an insulin secretory function is not controlled. The 3-(4-
10 (benzyloxy)phenyl)hex-4-inoic acid derivative according to the present invention
promotes insulin secretion only when glucose concentration is increased, thereby
protecting the pancreatic beta cells from apoptosis and restoring the insulin secretory
function of the pancreatic beta cells. Therefore, according to the present invention,
the 3-(4-(benzyloxy)phenyl)hex-4-inoic acid derivative exhibits an excellent
15 pancreatic beta cell protection effect, when administered as a primary selective agent
for diabetes and also when administered to a patient having pancreatic beta cells
damaged by the use of other drugs, which are primary selection agents for diabetes
and cause a secondary failure; and restores the insulin secretory function of
pancreatic beta cells, thereby being useful for treating type II diabetes in a patient of
20 which the blood glucose is not regulated in a normal manner by using an agent for
promoting insulin secretion.

FIG. 12