GENETICALLY MODIFIED ANIMAL AND USE THEREOF

ABSTRACT

It is intended to provide a non-human mammal deficient in the expression of SLC-1 gene, characterized in that, compared with a corresponding wild-type animal, (1) the blood insulin level is low in a glucose tolerance test, (2) the insulin sensitivity is increased, (3) the animal is resistant to obesity even with a high fat diet, (4) a white adipocyte is reduced in size, and (5) lipolysis is increased; and a part of living body thereof. Further, it is intended to provide a non-human mammalian model of obesity and/or type II diabetes which is deficient in the expression of SLC-1 gene, characterized in that, compared with a corresponding non-human mammalian model of obesity and/or type II diabetes in which the expression of the gene is normal, (1) the adiponectin expression is increased, (2) the onset of hyperglycemia is delayed, (3) the blood glycosylated hemoglobin value is low, and (4) the energy consumption is increased; and a part of living body thereof.