Technology Offer

Ifi202b for diagnosing metabolic syndrome, obesity and/or diabetes

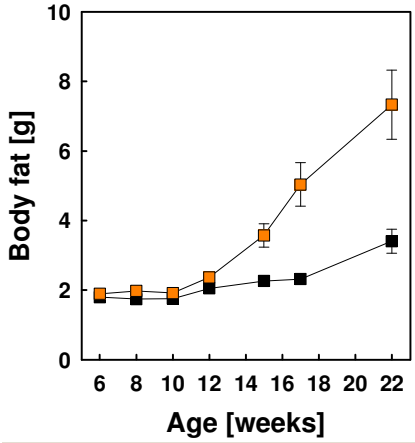
Reference Number: TO 05-00038

ascenion

A Company of the Life-Science Foundation for the Promotion of Science and Research

Challenge

Metabolic syndrome is a combination of medical disorders that increase the risk of developing cardiovascular disease and diabetes. It affects one in five people, and prevalence increases with age. Some studies estimate the prevalence in the USA to be up to 25% of the population. There have been many attempts to identify genes involved in the predisposition to common obesity, but presumably because of the genetic complexity, these efforts have had only limited success



Orange: recombinant mice
Black: control

Technology

The interferon-inducible gene 202b (*ifi202b*) and was identified as a genetic marker for metabolic syndrome, obesity and/or diabetes and in monitoring the response to dietary fat, in genetic and molecular analyses of mouse models that are inherently sensitive or resistant to diet-induced obesity and diabetes, respectively. According to the data, animals with a high activity/high amount/high expression of ifi202b gene product gain more weight than animals with low activity/low amount/low or regular expression of intact ifi202b in response to a caloric challenge, such as high fat diet induced obesity. This phenomenon is designated as "dietary fat-related", although the caloric challenge is not exclusively limited to calories derived from dietary fat, and is particularly pronounced in females. The data of the inventors also indicated that the integrity of the ifi202b gene product seems to be disturbed in order to maybe invoke diet-induced weight gain. Thus, *Ifi202b* provides a valuable tool both for diagnostic as well as therapeutic approaches, in order to treat or prevent metabolic syndrome, obesity and/or diabetes, in particular in response to dietary fat.

Commercial Opportunity

In-licensing or cooperation opportunity for the development of diagnostics and/or therapeutics in the field of metabolic syndrome.

Developmental Status

Successful proof-of-principle studies in mouse models were conducted. Currently transgenic mice overexpressing the gene on a BL/6 background are established.

Patent Situation

A European patent application no. 09014856.0 was filed December 2009.

Further Reading

Results are not yet published. Further information is available under CDA.

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