

Soy Germed Protein Plus Zn as an Inducer Insulin Secretion on Type-2 Diabetes Mellitus

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Author Order	of
Accreditation	
Abstract	Hyperglycemic induces pancreatic cells to produce inadequate insulin. However, previous studies revealed that soy protein induce pancreatic cells to secrete insulin. Hence, this study was aimed to investigate effect of soy germed protein on the insulin and blood glucose level of type-2 diabetes mellitus with Zn enrichment. The research involved twenty four women that characterized with having more blood glucose level than normal, body mass index more than twenty three kg/m ² , and age more than forty years old. They were divided into three groups randomly, eight woman for each group. The first, second and third group were treated respectively with milk containing soy germed protein plus Zn, this product without Zn, and placebo, all for two months. Blood samples were taken at baseline, one and two months after observation. Results showed that two months after observation the insulin level increased from 194.79 to 519.82 pmol/ml (P = 0.033) in group consuming milk containing soy germed protein with or without Zn, supported by significantly reduced blood glucose level. This result might be correlated with the potency of isoflavones in soy germ protein to protect pancreatic beta cellsmembrane from free radicals attack. Therefore, this maintain the cells integrity and to secrete optimal insulin.
Publisher Name	Bogor Agricultural University, Indonesia
Publish Date	2010-09-01
Publish Year	2010
Doi	DOI: 10.4308/hjb.17.3.120
Citation	2
Source	HAYATI Journal of Biosciences
Source Issue	Vol. 17 No. 3 (2010): September 2010
Source Page	120
Url	http://journal.ipb.ac.id/index.php/hayati/article/view/1688/731
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