

**EFEK SUPLEMENTASI EKSTRAK PROTEIN KECAMBAH KEDELAI TERHADAP  
KADAR IL-1BETA PENDERITA DIABETES TIPE-2**

[The Effect of Soy Germ Protein Extract Supplementation on the Level of IL-1 Beta of Type-2  
Diabetic Woman]

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**ABSTRACT**

*The research was conducted to determine the effect of soy germ protein extract supplementation on the IL-1beta level of type-2 diabetic women. Research subjects were 32 type-2 diabetic women, outpatients of Diabetic Clinics of Margono Soekarjo General Hospital-Purwokerto. These women had blood glucose level above normal, BMI > 23 kg/m<sup>2</sup>, over 40 years old, lived in Purwokerto, and signed the informed consent. Group A (n=8) was given milk containing soy germ protein extract plus Zinc, Group B (n=8) was given milk containing soy germ protein extract without Zinc, Group C (n=8) was given placebo, and Group D (n=8) was given glibenclamide for 8 weeks. Blood samples were taken 3 times: 0, 4 and 8 weeks after intervention. The plasma IL-1beta level was analyzed using Elisa. After 8 weeks, the IL-1beta level decreased from 6.01 pg/mL to 2.63 pg/mL (p=0.022) in group A. However, the IL-1beta level in Group A was not different from the Group B (p=0.51). Soy germ protein extract decreased cytokine inflammatory production of type-2 diabetic. Soy germ protein extract with or without Zn had similar effects to glibenclamide in reducing the IL-1beta level (p=0.76).*

**Key words:** IL-1beta, soy germ protein, Zn, type-2 diabetic.