HIT-T15 cell protective effect of Capsosiphon fulvescens extracts

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Diabetes mellitus is a metabolic disorder resulting from a defect in insulin secretion or insulin action, which results in hyperglycemia with disturbances of carbohydrate, fat and protein metabolism. Insulin and hyperglycemia agent including sulfonylureas, biguanides and thiazolidinediones are the main drugs to treat diabetes and are effective in controlling hyperglycemia, but these kind of drugs also have prominent side effect. There is an urgent need to look for the efficacious agents with lesser side effects. In this study was designed to evaluate pancreatic β -cell protective effect of *Capsosiphon fulvescens* extracts. Cell viability was significantly increased in the 500~25µg/ml groups, compared with the blank group. Cell survival by MTT assay with alloxan(4mM) was significantly increased in the 500~50 µg/ml groups, compared with the control group. We found that Capsosiphon fulvescens extracts increased cell viability, had a protective effect on β -cell, and increased insulin secretion level in HIT-T15 cells.