(05-1-24)

# Cloning and Functional analysis from Soybean (*Glycine max*)

**Kyung-Mee Kim, Jee-Eun Heo, Jung-Haw Kang, Suk-Hee Ji, Dae-Kun Jin**
**Young-Seob Yang, Jai-Heon Lee[1]**
Dept. of Plant Biotechnology, Dong-A University, Busan 604-714, Korea

## Objectives

Cloning of SLTI114 gene.

## Materials and Methods

1. Material

Plant – Glycine max. cv Sinpaldal 2

2. Methods:

mRNA isolation and cDNA synthesis, Suppression subtractive hybridzation (SSH), Differential screening of low-temperature-inducible genes, northern blot analysis

## Results and Discussion

The complete cDNA sequence of SLTI114 consisted of 1,443 bp with a initation codon at positions 102 and a termination codon at positions 1,259. A polyadenylation signal AATAAA occurred in the 3'-untranslated region at positions 1,418. The SLTI114 sequence had an open reading frame of 1,179 nucleotides which encodes 43.2 kDa polypeptide consisting 393 amino acid residues.

Fig. 1. Nucleotides and the deduced amino acid sequences of SLTI114 cDNA.

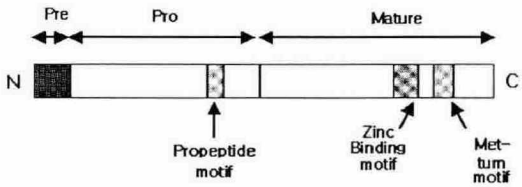


Fig. 2. Schematic presentation of the predicted SLTI114 protein showing the pre-pro-enzyme, which displays all of the hallmark motifs of MMPs, propeptide, zinc binding, and Met-turn motifs.

*Corresponding author : Jai-Heon Lee, Tel : 051-200-7592, E-mail : jhnlee@dau.ac.kr