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Cloning of MBD1 Gene encoding Methyl-CpG-binding domain protein in *Brassica rapa*

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Objectives

To identify the gene from flower tissue cDNA, we applied RT-PCR using MBD specific primer obtained NCB data screening. We have isolated MBD gene encoding Methyl-CpG-binding protein from *Brassica rapa.*

Materials and Methods

1. Material

Plant- Seoul baechu and Osome (*Brassica rapa.L*)

Organs; Flower, stem leaf, root

2. Methods

mRNA, cDNA, cDNA library, RT–PCR, Sequencing, Library screening, Real Time-PCR

Result and Discussion

The DNA of higher eukaryotes contains 5-methylcytosine (M^5C) as up to 30% of total cytosine reside.

In plants, methylation has been shown to predominantly occur in CpG and CpNpG site (N stand for A, T or C), but one study revealed that cytosine in CpNpN are also methylated.

We initiated the present study, one *Brassica* gene encoding putative proteins possessing on MBD were found in the plant chromatin database. The potential MBD in different proteins generally have a low lever of similarity. Also, transcripts were found in all tissues examined especially in flowers.

Currently, the physiological function of *Brassica* MBD can only be speculated from knowledge obtained with mammalian systems.

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