OB3. Development and Characterization of Microsatellite Markers in *Allium senescens*

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Objectives

This study was conducted to develope microsatellite markers for genetic study of apomixis in *Allium senescens.*

Materials and Methods

Materials : *Allium senescens* (2n=48)

Repeat Biotein Oligo : Mixture Ⅰ : (CAT)10, (CAA)10, (AGA)10, (CTT)10, (ACT)10
Mixture Ⅱ : (CT)15, (CA)15, (AGC)10, (GAC)10, (CTG)10

Method : Microsatellite enrichment

Results and Discussion

• The efficiency of microsatellite enrichment was higher in oligo mixture Ⅱ than that of oligo mixture Ⅰ.

• Among ten different kinds of repeatitive oligo, two sequence repeat (CT)15and (CA)15, was frequently observed.

• From microsatellite enriched library, 796 clones were sequenced and 303 clones inclued repeatitive sequence. From 303 sequence, 100 sets of primer were designed

Table . Result of microsatellite enrichment.

Restriction enzyme	Oligo Mixture	Number of sequences	Number of microsatellites	Primer manufactured
Mse I	Ⅰ	230	48	32
	Ⅱ	219	48	21
Sau3A I	Ⅰ	25	12	10
	Ⅱ	322	155	37

Table . Polymorphic microsatellite sequences from three different clones.

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2S2-41  1    TCAAAAGAAATTATTTGAAATAATAGCAATAACTAAAATTGCAAACTAAC  50
2S2-66       TCAAAAGAAATTATTTGAAATAATAGCAATAACTAAAATTGCAAACTAAC
2S2-86       TCAAAAGAAATTATTTGAAATAATAGCAATAACTAAAATTGCAAACTAAC

        51   TACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA  100
             TACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA
             TACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA

       101   CACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA  150
             CACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA
             CACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA

       151   CACACACACACACACACACACTCACACACACACACACACACACACACACACACACACACACACACACA  200
             CACACACACACACACACACACACA----------------------------
             CACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA

       201   CACACACACACACACACACACTCACACACACACACACACACACACACACACACACACACACACACACA  250
             ------------------------------------------------------
             CACACACACACACACA-----------------------------------

       251   CACACACACACACACACACACTACACACACACACACACACACACACACACACACACACACACACACAC  300
             ------------------------------------------------------
             ------------------------------------------------------

       301   ACACGCACACACAACACACACACACACACACACACACACACACACACACACACACACACACACACACA  350
             ------------------------------------------------------
             ------------------------------------------------------

       351   CACACACACACGCGGACTGAGAGCAATTTACCCATAAACATTGTGCTGCA  400
             -----------TCACTAAATCATGTTGTAAATTATTCTTTGAGTAAGCTA
             -----------TGTATATGTATACAGAAAGTACAAAGAGAAAAACTAGAG
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