

## **Disruption of the Rice Plastid Ribosomal Protein S20 Leads to Chloroplast Developmental Defects and Seedling Lethality**

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E.coli ----- 0
Nostoc ----- 0
ASL1  MATATSTLFSLSLSASLPSPAQPAPASLSLRAVSPRARLSASYAAFPIGGIGAWAAATP 60

E.coli -----MANIKSAKRAIQSEKARKHNASRRSMMRTFIKKVY 36
Nostoc --MDAILVNLVVCVHNYIVFLELTVANTKSAIKRAQIAERNRLRNKAYKSAVATLMKKYF 58
ASL1  ASSGRWRRRGLEVVCEAAKTGTATGRRPDSVKKRERQNDRHRIRNHARKAEMRTRMKKVL 120

E.coli AAIEAG-----DKAAAQKAFNEMQPIVDROAAKGLIHKNKAARHKANLTAQINKLA 87
Nostoc AAVEVYT--ANPTPE SKQAVEERI SEAYSKIDKAVKRGVLHPNTGARKKSRLAHKLPKA 116
ASL1  KALEKLRKKADATPEDIIQIEKWISEAYKALDRTVKVGMHRNTGNHRKSLARRKKAIE 180

E.coli ----- 87
Nostoc ----- 116
ASL1  ILRGWYVPNAEPAATS 196

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**Figure S1** Amino acid sequence alignment of the three kinds of RPS20 proteins. Amino acids fully or semi-conserved are shaded black and gray, respectively.

**Table S1 PCR-based molecular markers designed for fine mapping**

Marker	Primer Pairs	Fragment Size (bp)	Originating BAC
P1	AGGGCCTTATATCAAGACACATGC CCACGAACACTCGCATACCC	216	AP003725
P2	GTGTTTGGCGAGGGGTCATTA CATTCTCCCATCTATTGCC	178	AP003706
P3	CAACCTCGTCTTTGAGCCCA CGCCGAAAATGAGCTCTAC	245	AP003374
P4	TTCATCCTGTCGCCAACG ATGGATGCGTGATGCGTC	152	AP003335
P5	GGAAGGCATAGAACGCAAGA CTGATGCCTATACCATGCTACTGT	122	AP003335
P6	TTCTCCTTCTCCCGTTCCT CGGCCCTGTACTTCTGATTC	152	AP003335
P7	CAACCAGTCTACAGCCACATCTC AAGGGCGTATTTTCAGCGTC	205	AP003335
P8	CACCCAGAGCAAACACTGTCAG GAACTGTACGTTTCCCCTG	261	AP004363
P9	GCCTTACAACCAACGACGACT TATGTGTCTAGCTGCACTCCCA	181	AP003450

**Table S2 Primers for Real-time PCR**

Gene name	Forward primer (5'→3')	Reverse primer (5'→3')
<i>Cab1R</i>	AGATGGGTTTAGTGCGACGAG	TTTGGGATCGAGGGAGTATTT
<i>CAO1</i>	GATCCATACCCGATCGACAT	CGAGAGACATCCGGTAGAGC
<i>HEMA</i>	CGCTATTTCTGATGCTATGGGT	TCTGGGTGATGATTGTTTGG
<i>PORA</i>	TGTACTGGAGCTGGAACAACAA	GAGCACAGCAAATCCTAGACG
<i>YGL1</i>	CAGTCTCCAATGGCCACCT	TGCTTTCATCAGTGGCTGGT
<i>RPS7</i>	GCCAAAATCCATTCCAATTC	GGAGATGTACACGAGGAGATTG
<i>RpoB</i>	TATGGTCTAATCCGAGCGGT	TATGGTCTAATCCGAGCGGT
<i>rbcl</i>	CTTGGCAGCATTCCGAGTAA	ACAACGGGCTCGATGTGATA
<i>psaA</i>	GCGAGCAAATAAAACACCTTTC	GTACCAGCTTAACGTGGGGAG
<i>psbA</i>	CCCTCATTAGCAGATTCGTTTT	ATGATTGTATTCCAGGCAGAGC
<i>OsPoLP</i>	ACCGTGCTTTCAGGCTTGG	GCTGACTGATAATCACACG
<i>FtsZ</i>	AAAGGACATAACCTTGCAAG	AGTTTTCTATTGAACCGTG
<i>rbcS</i>	TCCGCTGAGTTTTGGCTATTT	GGACTTGAGCCCTGGAAGG
<i>V2</i>	GAGGAGTTCCTCACGATGAT	AGCATCAATGATAGACTCC
<i>RNRL</i>	GTTAGATGCTTCACTACACAG	GTACCATTGCCAACATGGCAAC
<i>RNRS</i>	GCCAAAATCCATTCCAATTC	GGAGATGTACACGAGGAGATTG
<i>16SrRNA</i>	CCGTTGGTGTCTTTCCGAT	TTCAAGTCCGCCGTCAAATC
<i>ASL1</i>	CACGCTCTTCCCTCTCCT'	GTAGGAGGCGGACAGGCG
<i>OsRpoTp</i>	TCCTCATGTCTGAGCAAGGAT	GAAAGAATGTCTGGACTTTG
<i>Actin</i>	AGGAAGGCTGGAAGAGGACC	CGGGAAATTGTGAGGGACAT