

A. Report of the committee on Gene Symbolization, Nomenclature and Linkage Groups

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I. Registration of new gene symbols

The following genes are newly registered:

GENE SYMBOL REGISTRATION No. 166

Registrant: Jianmin Wan^{*1,2}, Susong Zhu¹, Linglong Liu¹, Chunming Wang¹, Ling Jiang¹ and Danting Li¹
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Gene symbol: *S30*

Gene full name: *HYBRID SPIKELET STERILITY 30*

Character expression: Semi-sterility expressed as an allelic interaction such as *S30-i* / *S30-j*. Segregation distortion in BC₁F₁ due to the abortion of female gametes having *S30-j*

Name of original line: *O. sativa* cv. IR36(*S30-i*), Ludao(*S30-j*) and N22(*S30-n*)

Gene locus: Short arm of chromosome 7, between SSR marker RM11 and RM432

Remark: Data on F₁ fertility, segregation distortion in BC₁F₁ derived from IR36/Ludao//IR36 and linkage analysis are reported

Reference: Zhu et al. (2005) *Breeding Science* 55: 409-414

GENE SYMBOL REGISTRATION No. 167

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Gene symbol: *S31*

Gene full name: *HYBRID SPIKELET STERILITY 31*

Character expression: Semi-sterility expressed as an allelic interaction such as *S31-un* / *S31-gi*. Segregation distortion in BC₁F₁ due to the abortion of female gametes having *S31-un*

Name of original line: *O. sativa* cv. Guangjie 9 (*S31-gi*), USSR₅ (*S31-un*) and Dular(*S31-n*)

Gene locus: Short arm of chromosome 5, between SSR marker RM5579 and RM13

Remark: Data on F₁ fertility, segregation distortion in BC₁F₁ derived from USSR₅/Guangjie9//USSR₅ and linkage analysis are reported.

Reference: Zhao et al. (2006) *Euphytica* 151: 331-337

GENE SYMBOL REGISTRATION No. 168

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Gene symbol: *S32*

Gene full name: *HYBRID SPIKELET STERILITY 32*

Character expression: Semi-sterility expressed as an allelic interaction such as *S32-*kn* / S32-*ti** . Segregation distortion in BC₁F₁ due to the abortion of female gametes having *S32-n*

Name of original line: *O. sativa* cv. Ketan Nangka(*S32-*kn**), Tuanguzao(*S32-*ti**) and Dular(*S32-n*)

Gene locus: Chromosome 2, between SSR marker RM236 and RM279

Remark: Data on F₁ fertility, segregation distortion in BC₁F₁ derived from Tuanguzao/ Ketan Nangka //Ketan Nangka and linkage analysis are reported.

Reference: Li. et al. (2005) RGN 22:20-22
 Li. et al. (2007) Theor Appl Genet 114: 515–524

GENE SYMBOL REGISTRATION No. 169

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Gene symbol: *S33*

Gene full name: *HYBRID POLLEN STERILITY 33*

Character expression: Pollen semi-sterility expressed as an allelic interaction such as *S33-*id* / S33-*j**. Segregation distortion in BC₁F₁ due to the abortion of male gametes having *S33-id*

Name of original line: *O. sativa* weedy strain Ludao (*S33-*id**), cv. Akihikari (*S33-*j**) and 02428 (*S33-n*)

Gene locus: Chromosome3, between EST marker C0729 and SSR marker RM3350

Remark: Data on F₁ fertility, segregation distortion in BC₁F₁ derived from Akihikari//Ludao/Akihikari and linkage analysis are reported.

Reference: Jing et al. (2007) Theor Appl Genet 114: 915–925

GENE SYMBOL REGISTRATION No. 170

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Gene symbol: *S34*

Gene full name: *HYBRID POLLEN STERILITY 34*

Character expression: Pollen semi-sterility expressed as an allelic interaction such as *S34-*id* / S34-*j**. Segregation distortion in BC₁F₁ due to the abortion of male gametes having *S34-id*

Name of original line: *O. sativa* weedy strain Ludao (*S34-*id**), cv. Akihikari (*S34-*j**) and 02428 (*S34-n*)

Gene locus: Chromosome11, between SSR marker RM167 and RM552

Remark: Data on F₁ fertility, segregation distortion in BC₁F₁ derived from Akihikari/Ludao/Akihikari and linkage analysis are reported.

Reference: Jing et al. (2007) Theor Appl Genet 114: 915–925

GENE SYMBOL REGISTRATION No. 171

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Gene symbol: *PSSI*

Gene full name: *POLLEN SEMI-STERILE 1*

Character expression: The female gamete of mutant W207-2 was normal, and its semi-sterility was unaffected by growth duration but was conditioned by a recessive nuclear gene whose action leads to pollen semi-sterility and anther indehiscence.

Name of original line: *O. sativa* cv. Nipponbare.

Gene locus: Short arm of chromosome 8, between a 0.04 cM segment flanked by a CAPs marker L2 and a dCAPs L3 marker.

Remark: Data on genetic analysis and fine mapping of *pss1* are reported.

Reference: Li et al. (2007) Theor Appl Genet 114: 939–946

GENE SYMBOL REGISTRATION No. 172

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Gene symbol: *LGC2*

Gene full name: *LOW GLUTELIN CONTENT 2*

Character expression: With a low glutelin content and a high prolamine content in rice seeds

Name of original line: *O. sativa* cv. W3660

Gene locus: Short arm of chromosome 2, between SSR marker RM5356 and RM1358

Remark: Data on genetic analysis, linkage analysis and the marker-assisted selection accuracy are reported.

Reference: Wang et al. (2005) Cell Research 15: 622-630