

Registration of KS93WGRC27 Wheat Streak Mosaic Virus Resistant T4DL·4Ai#2S Wheat Germplasm

KS93WGRC27 (Reg. no. GP-416, PI 583794) is a hard red winter wheat (*Triticum aestivum* L.) germplasm line homozygous for T4DL·4Ai#2S wheat-*Thinopyrum intermedium* (Host) Barkw. & D.R. Dewey [syn. *Agropyron intermedium* (Host) P. Beauv.] chromosome translocation, developed cooperatively by the Kansas Agricultural Experiment Station, the Wheat Genetics Resource Center, Kansas State University, and the USDA-ARS. KS93WGRC27 was released by the Kansas Agricultural Experiment Station and the Wheat Genetics Resource Center as a germplasm in November 1993.

KS93WGRC27 is a BC₃F₂-derived line from the cross 'Karl'*4/Citr 17884. Citr 17884 is a *T. aestivum* germplasm homozygous for T4DL·4Ai#2S, a wheat-*A. intermedium* chromosome translocation and T7AS·7SS·7SL, a wheat-*T. speltooides* chromosome translocation (1,2), and Karl is a hard red winter wheat cultivar. T7AS·7SS·7SL consists of almost the complete 7S *T. speltooides* chromosome except for a small terminal 7AS segment translocated to the 7SS arm. T4DL·4Ai#2S consists of the 4DL arm of wheat and a homoeologous 4Ai#2S arm derived from *A. intermedium*, with the breakpoint at the centromere.

KS93WGRC27 is the bulked, selfed progeny of a BC₃F₂ plant that had 2n=42 chromosomes and was homozygous according to C-banding analysis for normal Chromosome 7A of wheat and for the T4DL·4Ai#2S translocation. The 4Ai#2S arm in KS93WGRC27 has the gene *Wsm1*, which conditions an effective level of resistance to the wheat streak mosaic virus.

Small quantities (3 g) of seed of KS93WGRC27 are available upon written request. We ask that appropriate recognition of source be given when this germplasm contributes to research or development of new cultivars. Seed is maintained by the Wheat Genetics Resource Center, Manhattan, KS.

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References and Notes

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3. B.S. Gill, B. Friebe, and D.L. Wilson, Wheat Genetics Resource Ctr., Dep. of Plant Pathology, Throckmorton Hall, Kansas State Univ., Manhattan, KS 66506-5502; T.J. Martin, Kansas State Univ. Agric. Res. Ctr., Hays, KS 67601; and T.S. Cox, USDA-ARS and Dep. of Agronomy, Kansas State Univ., Manhattan, KS 66506-5501. Cooperative investigation of the Kansas Agric. Exp. Stn. and the USDA-ARS. Contribution no. 95-31-J, Kansas Agric. Exp. Stn., Kansas State Univ., Manhattan, KS 66506-4008. Research supported in part by the Kansas Wheat Commission and Kansas Crop Improvement Assoc. Registration by CSSA. Accepted 31 Dec. 1994. *Corresponding author.

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