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# Registration of KS93WGRC28 Powdery Mildew Resistant T6BS·6RL Wheat Germplasm

KS93WGRC28 (Reg. no. GP-417, PI 583795) is a hard red winter wheat (*Triticum aestivum* L.) germplasm line homozygous for T6BS·6RL wheat–rye (*Secale cereale* L.) chromosome translocation, substituting for Chromosome 6B of wheat, developed cooperatively by the Kansas Agricultural Experiment Station, the Wheat Genetics Resource Center, Kansas State University, the USDA-ARS, and the Texas Agricultural Experiment Station. KS93WGRC28 was released by the Kansas Agricultural Experiment Station and the Wheat Genetics Resource Center as germplasm in November 1993.

KS93WGRC28 is a $BC_1F_4$–derived line from the cross MS6RL(6D)/'TAM104'. MS6RL(6D) is a monosomic 6RL(6D) wheat–rye chromosome substitution line, where the 6RL chromosome arm was derived from *S. cereale* cv. Prolific (1). TAM104 is a hard red winter wheat cultivar homozygous for a T6BS·6RL wheat–rye chromosome translocation consisting of the 6BS arm of wheat and the 6RL arm of rye with the breakpoint at the centromere.

KS93WGRC28 is the bulked, selfed progeny of a $BC_1F_4$ plant that had $2n=42$ chromosomes and was homozygous according to C-banding analysis for a recombined T6BS·6RL$^{rec.}$ wheat–rye translocation chromosome (2). The 6RL arm in T6BS·6RL$^{rec.}$ has a gene, *Pm20*, that conditions resistance to the powdery mildew fungus *Erysiphe graminis* DC. f. sp. *tritici* Ém. Marchal [syn. *Blumeria graminis* (DC.) E.O. Speer].

Small quantities (3 g) of seed of KS93WGRC28 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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2. Friebe, B., M. Heun, N.A. Tuleen, F.J. Zeller, and B.S. Gill. 1994. Cytologically monitored transfer of powdery mildew resistance from rye into wheat. Crop Sci. 34:621–625.
3. B. Friebe and B.S. Gill, Wheat Genetics Resource Ctr., Dep. of Plant Pathology, Throckmorton Hall, Kansas State Univ., Manhattan, KS 66506-5502; N.A. Tuleen, Dep. of Soil and Crop Science, Texas A&M Univ., College Station, TX 77843-2474; 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. 95-32-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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