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(54) **PLANT SNF1-RELATED PROTEIN KINASE GENE**

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(58) **Field of Classification Search**  
None  
See application file for complete search history.

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(57) **ABSTRACT**

The present invention relates to the isolation, purification, characterization and use of the plant Snf1-related protein kinase (SnRK) gene and genetic products. The invention includes isolated and purified SnRK DNA and relates to methods of regulating water loss and plant drought tolerance, sucrose content, starch content, seed oil content, fatty acid synthesis, seed oil acyl composition, seed size/weight, resistance/tolerance to biotic stresses, increased root biomass, and/or carbon flux into other seed components, plant, using the gene, and to tissues and plants transformed with the gene. The invention also relates to transgenic plants, plant tissues and plant seeds having a genome containing an introduced DNA sequence of the invention, and a method of producing such plants and plant seeds.