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Characterization of (GRAS37) Gibberellin Acid Insensitive (GAI), Repressor (RGA), and Scarecrow (SCR) Gene by Using Bioinformatics Tools

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Abstract : The Grass 37 gene is presently known in tomatoes, which are the source of healthy substances such as ascorbic acid, polyphenols, carotenoids and nutrients. It has a significant impact on the growth and development of humans. The GRASS 37 gene is a plant Transcription factor group assuming significant parts in various reactions of different Abiotic stresses such as (drought, salinity, thermal stresses, temperature, and bright waves) which could highly affect the growth. Tomatoes are very sensitive to temperature, and their growth or production occurs optimally in a temperature range from 21 C to 29.5 C during the daytime and from 18.5 C to 21 C during the night. This protein acts as a positive regulator of salt stress response and abscisic acid signaling. This study summarizes the structure characterized by molecular formula and protein-binding domains by different bioinformatics tools such as Expasy translate tool, Expasy Portparam, Swiss Prot and Inter Pro Scan, Clustal W tool regulatory procedure of GRASS gene components, also their reactions to both biotic and Abiotic stresses.

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