

عنوان مقاله:

Compare of glutathione S transferase partial gene sequences of wheat and crab by nucleotide alignment

محل انتشار:

چهارمین همایش بین المللی زیست شناسی و علوم زمین (سال: 1400)

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خلاصه مقاله:

Glutathione S-transferase is a family of multifunctional detoxification enzymes which are mainly cytosolic that detoxify natural and exogenous toxic compounds by conjugation with glutathione. Glutathione, an endogenous tripeptide, is important as either a reducing agent or a nucleophilic scavenger. This molecule alleviates the chemical toxicity in plants by reaction of glutathione S-transferase, and its conjugates can be transported to vacuole or apoplast. The plant soluble glutathione S-transferases grouped today into five distinct Phi, Tau, Zeta, Theta, lambda classes. Many glutathione S-transferase have been purified from animals over the last ۳۰ years and classified by their biochemical and immunological characteristics. Sequencing studies were used to extend this system. In this article one bread wheat (*Triticum aestivum* L.) Iranian Alvand cultivar glutathione S-transferase partial gene sequence and one crab (*Portunustrituberculatus*) glutathione S-transferase partial gene sequence from NCBI database were compared by nucleotide alignment using multalin software and with distance in evaluation showed ۴۱% nucleotide similarity. Databases have allowed us to classify glutathione S-transferase and study their evolution and sequence diversity, while crystallographic studies have provided powerful insights into their structural biology.

کلمات کلیدی:

GST, Multalin, Iranian Alvand cultivar, Gazami crab, Evaluation

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