

## عنوان مقاله:

Isolation, molecular cloning and expression analysis of Aeluropus littoralis Monodehydroascorbate reductase (MDHAR) gene under salt stress

## محل انتشار:

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## خلاصه مقاله:

Plants are naturally exposed to frequent changes in environmental conditions such as salt stress affecting their growth and development, and consequently a considerable reduction in total productivity. Monodehydroascorbate reductase (MDHAR), a key enzyme in ascorbate-glutathione cycle, serves as an important antioxidative enzyme in scavenging of reactive oxygen species (ROS). In this study, MDHAR gene from *Aeluropus littoralis* was isolated using specific primers by RT-PCR and its expression variation was investigated at 0, 150, 300, 450 and 600 mM of NaCl through Real-time PCR. The results indicated that *A. littoralis* MDHAR gene comprised 1436 bp without any introns, showing a high similarity with *Sorghum bicolor*. The only alteration of MDHAR expression was observed at 300 mM NaCl, i.e. cytosolic MDHAR in both shoot and root was increased 1.3 and 1.4 fold compared to control samples. It could be concluded that accumulation of MDHAR reduces at NaCl concentrations higher than 300 mM.

## کلمات کلیدی:

*Aeluropus littoralis*, Ascorbate-glutathione cycle, MDHAR, Real-Time PCR, ROS

## لینک ثابت مقاله در پایگاه سیویلیکا:

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