PP-153

In the Condition of Salt Stress, Differential Expression of Akvaporin Genes in *Mesembryanthemum crystallinum* L. Plant

Elfira AGAYEVA[1] ,Nargiz BAYRAMOVA[2]
Anatomy, physiology and zoology /GanjaStateUniversity, Azerbaijan
Anatomy, physiology and zoology / GanjaStateUniversity, Azerbaijan
shanur@rambler.ru

Aim of the study: The purpose of our study to determinate differen tialexpression of genes incrystal flower plant and it consisits of learning role of this process to adaptation time to chloride salinity of plants. To explore Natrium chlorid eimpact of basic physiol ogical parameters which characterize the water status of plants. Assess the role of akvaporin in the adaptation of plants to high concentrations of natrium chloride. To explore the differential expression of six genes of akvaporin in the bodies of *M. crystallinum* plants.

Materials and methods: Crystal flower (*M. crystallinum* L.) was used as an object of study. Plants were grown around the 23-250C in the afternoon and 18-20^{0}C in the night in the fitotron cell. *M. crystallinum* 4-10 weakly plants have been used in the experiment.
The practise is calculated from the beginning. For this purpose, 200 and 400 mM concentration was used. The length of eac hexperiment, 3, 9, 24, 72, 168 hours. 3-4 leaves from the bottom layer was fixed at every point of the experiment. Determination of transpirasiya intensity of leaves was taken togenerally accepted gravitational method Ivanova. For determine freelance prolinin as mainly Bates et al., (1973) method the nin hidrin reactive was used. The RNT separation of crystal flower leaves and roots have been carried outby Rneasy Mini Kit. Polymerase chain reaction was carried out. For getting microsomal membranes, appropriate authorities of plant 300 mm sucrose, 100 mM Tris - HCl (pH 8.0), 10 mM EDTA, 5mM potassium metabisulfite, 5mM ditioeritritol, 1mM fenilmetilsulfonilxlorid and were homogenized in 0.6% polivinilpirolidan environment. It was Homogenat 1000D filtration. 10 min centrifuge with in.Determination of protein Bradford (1976) was conducted in accordance with the procedure. Electrophoretic splitting of proteins Laemmli (1970) basis was taken 12.5% PPA bride mini-Protean cell 3Cell.

Results: The expression of six gene of akvaporin was studied by us: MIPA, MIPB, MIPC, MIPH, MIPF, MIPK. The analysis of amino acid sequences showed that, 4 of them plasmale mma (MIP A, B, C, H), and 2 - tonoplastda (MIP F, K) has been localized.The study of *Mesembryanthemum crystallinum* plant, troughout the day in response to the intensity and length of the effect NaCI in various organs McPIP1; 1; McPIP2; 1; McPIP2; 3; McTIP1 2 və McTIP2 2 allows to determine expression of akvaporin genes.4 gene was Plasmalemma aquaporins McPIP1 ruled out. Its constitutivee xpression is not depend on the body's location, what time of theday,on the nature of the impact of stressor. In the stress conditions of changing the main physiological parameters of water status of plants. Associated with arthritis the water deficit irrigation of leaf intensity transpiration, SNH, is accompanied by a decrease in osmotic potential.Akvaporin genes of plasmalemma decreasing of transcellular water transmission in sukkulent bodies. At the same time, it is reflected less in the intensity distribution of water intracellular, so the evidence the stressor tonoplasts akvaporin genes would show the weak impact to the ekspression.

Keywords: differential expression, akvaporin, expression of genes, salt shock