

## The GMO-testing of some patterns of the Salmonidae Family

*Zurab Kuchukashvili, Tamar Albutashvili, Akaki Chargeishvili, Gvantsa Shanshiashvili,  
Natia Gureshidze*

e-mail: [zurab.kuchukashvili@tsu.ge](mailto:zurab.kuchukashvili@tsu.ge)

Department of Biology, Faculty of Exact and Natural Sciences, Tbilisi State University  
3, Chavchavadze Ave., 0128, Tbilisi, Georgia

In November 19 of 2015 year FDA (food and drug administration) permitted the consumption of the GMO salmon by people in the USA which was produced by Aquabounty Company [1]. The GMO salmon is the first genetically modified product which was permitted for people consumption as a food. The GMO salmon was first created 20-25 years ago. It was subject of discussion during years what kind of pros and cons and what kind of damage could the GMO salmon have for people and biodiversity [2, 3].

In Georgia there were no regulation mechanisms to control genetically modified organisms until 2014 and imported food and seed were not tested for gen modification. Nowadays in Georgia the monitoring of food and seeding materials is very active. However neither locally animal products nor imported have been tested for GM so far.

The aim of the current work is to verify if some representatives of the salmonidae family which are imported in Georgia are GMO positive. We've chosen the most merchantable representatives of the salmonidae family in Georgian agricultural market and were sampled the 11 patterns from different selling points.

For detect of GMO used the polymerase chain reaction method with the gel electrophoresis. We've checked the patterns by identifying the controlling gene of the growth hormone, which is moved to the GMO salmon to stimulate growing.

The data obtained showed that our 11 sample did not give positive results for GMO markers Fig. 1.

### References :

- [1]<http://www.fda.gov/downloads/AnimalVeterinary/DevelopmentApprovalProcess/GeneticEngineering/GeneticallyEngineeredAnimals/UCM466218.pdf>
- [2] Benfey, T.J. Reviews in Aquaculture, 7, (2015) 1-19.
- [3] Devlin, R.H., L.F. Sundström, and R.A. Legatt, BioScience 65, (2015) 685-700.

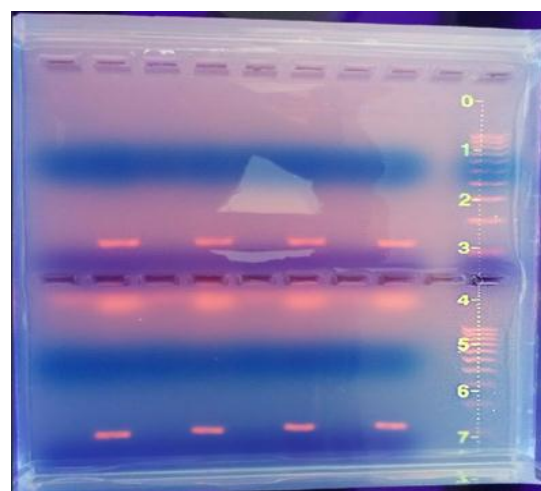


Fig. 1 Gel electrophoresis of the samples with ethidium bromide