

Effects of Bisphenol A-exposure on the gene expression of culture neuron BG2-c6

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To test the hormonal activities of so-called endocrine disrupting chemicals, and analyze their biological mechanisms, we need the efficient model system with the accumulated genetic background. In such sense, *Drosophila* cell line is one of the most valuable examples. Recently we have established the method in which *Drosophila* neural cell line BG2-c6 treated with 20-hydroxyecdysone starts to extend long projections containing the actin filaments and microtubules over 30 μ m in length and makes the contacts each other during the first three days. In the present study, using this culture cell system we attempted to perform the gene screening in order to clarify the effect on the gene expression by the exposure of Bisphenol A (BPA). We screened the transcribed products from the cell samples treated with 20-hydroxyecdysone by means of the HiCEP method. Fifteen fragments of RNA showed the change in the amount between cells exposed with BPA and control cells. As a result, two fragments were identified to be sense forms; *i.e.*, a lipid binding protein and a kind of ion transporter. We challenged to analyze the expression profiles of these genes, from 0 to 72 hrs after treatment with 20-hydroxyecdysone, by means of real time PCR.