

The investigated concentrations of the Kirkozon lomonosome extract (*Aristolochia clematitis*) affect the functional activity of *Chironomus* polytene chromosomes. The activity of all Balbiani (BR) rings is most suppressed at a concentration of 1/10 of the LC50, rather than at 1/100 LC50. The activity of the nucleolar organizer (NOR) is more suppressed at a concentration of 1/100 LC50. The range of variation of the BRB activity index in the control is much higher than at a low concentration. The minimum range is observed at a high concentration. It indicates the significant effect of this concentration on the polytene chromosomes functional state. When the functional activity of polytene chromosomes is suppressed the occurrence of mutations is unlikely, therefore, the water solution of the Kirkozon dry alcohol extract containing flavonoids does not demonstrate cytotoxic effect on eukaryote interphase chromosomes.