E119 Changes of the Esterase Isozymes Exposed to Different Temperature, pH and Salinity in Oyster(*Crassostrea gigas*)

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Changes of esterase isozymes in oyster exposed to different temperature, pH or salinity stress were investigated by polyacrylamide gel electrophoresis. Esterase isozymess in the control group were separated into seven bands. In case of temperature stress exposed to 0℃ and 10℃, two bands were decreased after 12 hours, four and two bands were respectively decreased after 24 and 48 hours. Under 25℃ and 35℃ temperature stress, three and four bands were respectively decreased after 12 and 24 hours, two bands were decreased after 48 hours. In case of pH stress exposed to pH 5.5 and pH 6.5, one bands were decreased after 12 hours, there was no changed in pH 5.5 but two bands were decreased in pH 6.5 after 24 hours, two and three bands were decreased after 48 hours. Under pH 8.5 and pH 9.5 pH stress, two bands were decreased after 12 hours, one band was increased in pH 8.5 but decreased in pH 9.5 after 24 hours, two and one band were decreased after 48 hours. In case of salinity stress exposed to 5 ppt and 10 ppt, one and two bands were decreased after 12 hours, one band was decreased in 5 ppt but increased in 10 ppt after 24 hours, two bands were decreased after 48 hours. Under 30 ppt and 40 ppt salinity stress, three bands were decreased after 12 hours, there was no changed in 30 ppt but two bands were decreased in 40 ppt after 24 hours, one and three bands were decreased after 48 hours. On the other hand, the activity of the bands was shown to various pattern but one band on the near-positive side on the gel was not changed by any stress condition. Ultimately, changed patterns of esterase isozymess activity by environmental stress indicate biological defense mechanism in oyster.

E120 Screening of Korean Herbs Affecting Cisplain-Induced Apoptosis of Cultured Mammalian Cells.

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The present study were performed to screen various Korean herbs, either decrease or increase the apoptosis induced by treatment with cis-PLATINUM(Ⅱ)DIAMMINE DICHLORIDE (cisplatin), an anticancer durg, in cultured NIH 3T3 or HeLa cells. By MTT assay for cell viability analysis water extracts of four Korean hebs(KH 1-4) showed decreased cell viability as compared with control. These herb extracts also induced apoptosis as judged by apoptotic body formation and DNA fragmentation. However, postincubation of these extracts increased the viability of cisplatin-treated cells. In particular, KH 4 significantly delayed the cisplatin-induced apoptosis as determined by flow cytometric analysis. Further studies are on going for massive screening of Korean hebs and for detailed molecular mechanism underlaying the observed delay of cisplatin-induced apoptosis.