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## Correlation of Polybrominated Diphenyl Ethers and Dioxin-like PCBs in Human milk from Seoul, Korea

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Polybrominated diphenyl ethers (PBDEs) are a class of brominated flame retardant chemicals widely used in electronic equipment, plastics, construction materials. They resist degration, persist in the environment and are lipophilic and bioaccumulate. The aim of this study determined concentrations of PBDEs and PCBs in human milk. The sample for breast milk were collected from a marternity on 30th days giving birth women who lived in Seoul, 2007. The seven tri- through heptabrominated congeners and 12 dioxin-like PCBs in 22 milk samples were analyzed by a gas chromatograph with high resolution mass detector. 7 PBDEs and 12 dioxin-like PCBs were determined. The correlation matrix tests were performed on the calculated statistical software (STATISTICA version 6.0) at a 95% confidence levels. The sums of the concentrations PBDE congeners were  $1.51 \sim 17.13$  ng/g fat wt. ( $4.46 \pm 3.27$  ng/g) and PCB congeners were  $2.18 \sim 9.52$  ng/g ( $4.56 \pm 1.98$  ng/g). The significant positive correlations between PBDEs and dioxin-like PCBs were observed in sapmles, indicating the similar exposure route of these contaminants, probably via fish intake.

Key words: PBDEs, dioxin-like PCBs, Seoul, congener