D-23 Changes of Locustatachykinin I-Immunoreactive and Leucokinin I-Immunoreactive Neurons in Larval Central Nervous System of *Heliothis assulta*

권도우*, 김기성, 강성훈, 김우갑, 이봉희
고려대학교 생물학과

The distribution of Locustatachykinin I-Immunoreactive(LomTK I-IR) and Leucokinin-I-Immunoreactive(LK I-IR) neurons in larval CNS of *Heliothis assulta*, is investigated. Most of immunoreactive neurons are found in brain. LomTK I-IR of brain increase 8 to 34 in number during larval developmental stages. but in ventral ganglia, they found to be constant in number. We found 3 pairs of LomTK I-IR neurons in suboesophageal ganglion, 2 pairs in 1st thoracic ganglion and 3 pairs in terminal ganglion respectively. The reactivities of LK I-IR neurons in larval CNS are different from reactivities of Lom TK-IR neurons. The LK I-immunoreactivities are found to be very weak. In larval brains, we found about 2 to 8 LK I immunoreactive neurons. We found about 2 or 3 pairs of LK I-IR neurons in 2nd, 3rd, and 4th abdominal ganglia and 3 pairs in terminal ganglion.

D-24 Localization Pattern of LomTK-I-Immunoreactive peptides in Embryos of *Drosophila melanogaster*

권도우*, 이봉희,
고려대학교 생물학과

Drosophila embryos were investigated to produce various kinds of peptides during their developmental stages. We confirmed that, in *Drosophila melanogaster*, Locustatachykinin-I-Immunoreactive (LomTK-I-IR) peptides, which has been reported to be purified from brain and corpus cardiacum, and to play major roles as a myotropic contraction in foregut and oviducts in Locust, appear as several stained spots in both anterior tip and posterior tip of embryos during various developmental stages. In the mid stage of neurulation, LomTK-I-IR peptides are found mostly medial, dorsal part of posterior region of *Drosophila* embryo, as well as anterior and posterior regions. After neurulation, the LomTK-I-IR peptides are located as one or two large stained clumps of embryos. Thereafter, the LomTK-I-IR peptides are strongly stained in three segments of thoracico-anteroabdominal part of embryos. When embryos are developing toward 1st instar larva stage, the localization pattern of the LomTK-I-IR peptides are changed as various small spots, and then as more large spots, especially in ventral regions of embryos. Thus, tembryo nearer to 1st instar larva shows various large LomTK-I-IR spots in ventral portion of embryos.