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Postembryonic Change of Lom TK-I-Immunoreactive neurons in Ventral Ganglia of Moth, Spodoptera litura

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The ventral ganglia of *Spodoptera litura* are composed of suboesophageal(1st instar larva to pupa), 3 thoracic and 8 abdominal ganglia, while suboesophageal ganglion is incorporated to the brains during metamorphic process from prepupa to 1-day-old pupa. The only 2nd thoracic ganglion has 1 pair of locustatachykinin-I-Immunoreactive(Lom TK-I-IR) neurons in the ventral ganglia of 1st instar larva, while 2nd and 3rd ganglia contain 1 pair and 3 Lom TK-I-IR neurons respectively. However, Lom TK-I-IR neurons are included in all the ventral ganglia from 3rd instar larva to adult. In each ventral ganglion, the number of Lom TK-I-IR neurons gradually increase from 1st instar to 5th instar larvae. The Lom TK-I-IR neurons gradually decrease in number from 6th instar larva to adult. All the ventral ganglia, which have the Lom TK-I-IR neurons contains 2 pairs of Lom TK-I-IR nerve fibers which run from brain to terminal ventral ganglia. In proportion of number of Lom TK-I-IR neurons, generally, the Lom TK-I-IR nerve processes gradually increase or decrease in number.

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Postembryonic Development of LK-I-Immunoreactive Neurons in Brains of Moth, *Spodoptera litura*

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The morphological and numerical changes of leukokinin-I-Immunoreactive(LK-I-IR) neurons has been investigated in the brain of the 1st, 2nd, 3rd, 4th, 5th, 6th instar larvae, prepupa, 1-day-old, 3-day-old, 5-day-old, 7-day-old pupae, and the adult of *Spodoptera litura*. The LK-I-IR neurons, which include about 2 pairs in the brain of 1st instar larva, increase in number to 18 pairs in the brain of 5th instar larva. The LK-I-IR nerve processes from the 1st instar larva to the 5th instar larva are mostly intrinsic, weakly-reacted, and relatively thin. However, 2 pairs of LK-I-IR nerve fibers are running into the ventral ganglia. While the brain of the 6th instar larva has 12 pairs of LK-I-IR neurons, all the brains of prepupae, 1-day-old, 3-day-old, 5-day-old, 7-day-old pupae, and the adult contain 3 or 4 pairs of LK-I-IR neurons. The LK-I-IR nerve processes decrease in number in proportion to the LK-I-IR neurons, and are more weakly-reacted.