

3-3-23. Change of Tissue Ferritin of Wax Moth, *Galleria mellonella* on Dietary Mercury (Hg) Ion

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A new tissue ferritin from *Galleria mellonella*, which was different from that of haemolymph, was purified and characterized by Western blots against anti-haemolymph ferritin. The tissue ferritin represented a cross-reactivity against anti-haemolymph ferritin and was composed of four subunits, 26, 30, 32 and 34 kDa. The 34 kDa subunit is specific for tissue ferritin, but other subunits are identical to those of haemolymph ferritin by 12.5% SDS-PAGE and immunoblots. In Hg-fed larva by adding HgCl₂ directly to the diet, ferritin level in haemolymph decreased at 8 hr-period but gradually increased at 16~48 hr-period, but ferritin level in tissue showed increment pattern during all the time 8~48 hr-period. We also investigated the distribution of tissue ferritin in Hg-fed larva by adding HgCl₂ to the diet. These results suggest that in *G. mellonella* tissue ferritin is different from haemolymph ferritin in ferritin-inducible mechanism on dietary heavy metal ions as well as biochemical properties.