

An Immunohistochemical and Ultrastructural Study on the Heavy Metals Accumulated Kidney of *Laternula elliptica*

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The kidney of bivalve mollusks often contains remarkably high concentrations of both essential and non-essential metals and performs regulating and detoxicating activities. The kidney has also been proposed as a biological indicator for radioactive as well as for stable metals in the sea. The present investigation on the *Laternula elliptica* concerns the functional morphology of the kidney, which contains high accumulated heavy metals, particularly epithelial cells as sites of metal storage. The immunohistochemical and ultrastructural methods were undertaken in order to find out the localization of metallothionein and aspect of accumulated heavy metals in the kidney of *Laternula elliptica*. The result of immunohistochemical study showed that intense metallothionein immunostaining reaction was found in the epithelial cell of the kidney of *Laternula elliptica*. The result of transmission electron microscopy showed that epithelial cells contained numerous electron-dense inclusion bodies which were thought to be accumulating heavy metals.