

면역조직화학 및 SEM-EDS를 이용한
남극 큰띠조개의 조직내 중금속 축적위치파악에 관한 연구
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= Abstract =

A Study on the Accumulation of Heavy Metals in the Tissue
of the Antarctic Clam *Laternula elliptica*.

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The present study on the *Laternula elliptica* concern the functional morphology of the kidney, digestive gland and gill which contain highly accumulated heavy metals, particularly to their epithelial cells as sites of metal storage.

The immunohistochemical and SEM-EDS methods were undertaken in order to find out the localization of metallothionein and the aspect of the accumulated heavy metals in the kidney, digestive gland and gills of *Laternula elliptica*.

The result of immunohistochemical study showed that intense metallothionein immunostaining reaction was found in the epithelial cells of each of the organs of the *Laternula elliptica*. And, the result of SEM-EDS methods showed that all of the organs contain heavymetals such as Cr, Cd, Cu and so forth.

Histochemical and Immunohistochemical Study on the Stomach of a
Land Snail, *Helix aspersa*.

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ABSTRACT

The histochemical and immunohistological study on the stomach tissue of the land snail, *Helix aspersa* was carried out.

The epithelium of the stomach consisted of three types of columnar cells. Type 1 cells which is majority in number has a brush border with microvilli on the free surface of the cells and contained acidic mucopolysaccharide. Type 2 cells which is typical goblet cell was tended to crowd to one side. It contained neutral and acidic mucopolysaccharide.

Oval shaped type 3 cells slanted to the basal membrane and was rarely found in the epithelium. It contained neutral and acidic mucopolysaccharide.

In the immunohistological study, cellulase activity was confirmed by LSAB kit. It was shown on the apical cytoplasm of the stomach epithelium labelled with the streptavidin particles under the LM.