

# Acid mucopolysaccharides in the eyes of the butterfly, *Pieris brassicae* and the moth, *Philosamia ricini*

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**ABSTRACT:**

Mucopolysaccharides were detected by histochemical methods in the crystalline cones of both the butterfly (*Pieris brassicae*) and the moth (*Philosamia ricini*) commonly known as large cabbage white and eri silk moth respectively, but they were absent in the rhabdome part of both the insects. The mucopolysaccharides were extracted by biochemical method and the subsequent electrophoretic analysis revealed that they were similar to chondroitin 4 – sulfate. Moreover, chromatographic analysis revealed different sugar components in the eyes of the two insects. It is concluded that acid mucopolysaccharides have structural and other physiological roles in the visual apparatus but no part in light and dark or photoperiodic adaptations.

**Keywords:**

Mucopolysaccharides, Rhabdome.