

ABSTRAK

Studi Struktur Histologis Kelenjar Brunner dan Kelenjar Intestinal *Sugar Glider* (*Petaurus breviceps*) dengan Pewarnaan *Alcian Blue – Periodic Acid Schiff* (AB-PAS)

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Sugar glider merupakan marsupialia berukuran kecil golongan omnivora. Penelitian mengenai saluran pencernaan *sugar glider* sudah banyak dilakukan, namun penelitian tentang kelenjar Brunner dan kelenjar intestinal belum dilakukan. Penelitian ini bertujuan untuk mengetahui struktur histologis kelenjar Brunner dan kelenjar intestinal *sugar glider* dengan pewarnaan *Alcian Blue – Periodic Acid Schiff* (AB-PAS). Pewarnaan AB-PAS bertujuan untuk mengetahui tipe mukopolisakarida pada kelenjar Brunner dan kelenjar intestinal.

Hewan coba yang digunakan dalam penelitian ini yaitu *sugar glider* jantan dewasa sebanyak dua ekor. Sampel diambil dari perbatasan gastroduodenal dan bagian proximal jejunum. Sampel difiksasi dalam PBS-formalin 10%. Jaringan diproses dengan metode parafin. Preparat sampel diwarnai menggunakan pewarnaan Hematoksilin - Eosin (HE) dan *Alcian Blue – Periodic Acid Schiff* (AB-PAS). Analisis preparat secara deskriptif.

Hasil pengamatan menunjukkan kelenjar Brunner *sugar glider* terletak pada tunika submukosa duodenum, berbentuk tubuloalveolar bercabang dengan asini mukosa. Kelenjar intestinal terletak pada lamina propria mukosae, berbentuk tubuler, dan tersusun atas berbagai jenis sel. Kelenjar Brunner *sugar glider* mengandung mukopolisakarida netral. Asini kelenjar intestinal *sugar glider* mengandung mukopolisakarida netral, sedangkan sel goblet mengandung mukopolisakarida asam.

Kata kunci : *sugar glider*, kelenjar brunner, kelenjar intestinal, *Alcian Blue – Periodic Acid Schiff*

ABSTRACT

Histological Study of Brunner's Glands and Intestine Glands in Sugar Glider (*Petaurus breviceps*) with Alcian Blue-Periodic Acid Schiff (AB-PAS) Stain

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Sugar glider is omnivorous small marsupials. Digestive tract of sugar glider had been studied before, but detailed information about Brunner's glands and intestine glands are currently unavailable. The objective of this study is to observe histological structure of Brunner's glands and intestine glands using Alcian Blue-Periodic Acid Schiff (AB-PAS) stain technique. AB-PAS stain is used to determine type of mucopolysaccharides in Brunner's glands and intestine glands.

Two adult male sugar gliders were used in this research. Sample collected from gastroduodenal junction to proximal part of jejunum and fixated in PBS-formalin 10%. Sample were processed by paraffine method and stained using Hematoxylin-Eosin (HE) and Alcian Blue – Periodic Acid Schiff (AB-PAS). Histological structure of Brunner's glands and intestinal glands were analyzed descriptively using Optilab viewer.

Brunner's glands located in tunica submucosa duodenum, simple branched tubuloalveolar and has mucous type acini. Intestine glands located in lamina propria mucosae, tubular, and consists of multiple type cells. Content of Brunner's glands are neutral mucopolysaccharides. Intestine glands contain neutral mucopolysaccharides whereas goblet cells contain acid mucopolysaccharides.

Keywords : sugar glider, Brunner's glands, intestine glands, Alcian Blue-Periodic Acid Schiff