# ABSTRAK

**Hot Nunut Mega Lumban Gaol, NIM 4183220030 (2023). Pengaruh Ekstrak Etanol Daun Pirdot (*Saurauia vulcani* Korth.) Terhadap Gambaran Histologi Pankreas Pada Tikus Putih (*Rattus norvegicus*) yang Diinduksi Rhodamin B.**

Rhodamin B mengandung bahan kimia dan radikal bebas yang berpotensi menimbulkan kerusakan histologi pankreas, bahan kimia ini bersifat karsinogen. Radikal bebas dapat dinetralisir dengan pemberian antioksidan alami seperti daun pirdot (*Saurauia vulcani* Korth.) yang mengandung senyawa flavonoid seperti quercetin, apigenin, luteolin dan salvigenin. Komponen ini dikenal sebagai zat antioksidan, antikanker, dan antiinflamasi. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh pemberian ektrak etanol daun pirdot (*Saurauia vulcani*, Korth.) terhadap berat badan, berat rasio organ pankreas dan gambaran histologi pulau langerhans tikus (*Rattus novergicus*) yang diinduksi rhodamin B. Jenis penelitian ini merupakan rancangan acak lengkap dengan lama perlakuan 30 hari. Dua puluh empat ekor tikus putih dibagi kedalam 4 kelompok perlakuan dan 6 ulangan yaitu kelompok kontrol (P1), kelompok rhodamin B (P2), kelompok EES (P3), dan kelompok Rhodamin B + EES (P4). Data pengamatan dianalisis dengan uji *One Way* ANOVA dan dilanjutkan uji DMRT menggunakan SPSS 26. Pengamatan histologi pankreas dibatasi pada diameter pulau langerhans. Hasil analisis data dengan pemberian ekstrak etanol daun pirdot (*Saurauia vulcani* Korth.) terhadap berat badan tikus menunjukkan tidak berbeda nyata pada tiap kelompok perlakuan P1, P2, P3, dan P4. Hasil analisis data pemberian ekstrak etanol daun pirdot (*Saurauia vulcani* Korth.) terhadap berat relatif organ pankreas menunjukkan adanya perbedaan tiap kelompok perlakuan P1, P2, P3 dan P4. Hasil pengamatan histologi pankreas dengan pemberian ekstrak etanol daun pirdot (*Saurauia vulcani* Korth.) menunjukkan penurunan tingkat kerusakan terhadap diameter pulau langerhans pankreas. Kelompok perlakuan menunjukkan adanya perbedaan tiap kelompok P1, P2, P3 dan P4.

**Kata kunci**: EES, *Rhodamin B, Histologi Pulau Langerhans, Berat Relatif Organ, Berat Badan*

# ABSTRACT

**Hot Nunut Mega Lumban Gaol, NIM 4183220030 (2023). The Effect of Pirdot Leaf Ethanol Extract *(Saurauia vulcani* Korth*.)* on Histological Features of the Pancreas in Rhodamine B. Induced White Rats *(Rattus norvegicus)*.**

Rhodamine B contains chemicals and free radicals that have the potential to cause pancreatic histological damage, these chemicals are carcinogens. Free radicals can be neutralized by administering natural antioxidants such as pirdot leaves (Saurauia vulcani Korth.) which contain flavonoid compounds such as quercetin, apigenin, luteolin and salvigenin. This component is known as an antioxidant, anticancer, and anti-inflammatory agent. The purpose of this study was to determine the effect of giving pirdot leaf ethanol extract (Saurauia vulcani, Korth.) on body weight, pancreatic organ weight ratio and histological features of the islets of Langerhans in rats (Rattusnovergicus) induced by Rhodamine B. This type of research was a completely randomized design with 30 days of treatment. Twenty four white rats were divided into 4 treatment groups and 6 replications, namely the control group (P1), the Rhodamin B group (P2), the EES group (P3), and the Rhodamin B + EES group (P4). Observational data were analyzed by One Way ANOVA test and DMRT follow-up test. Histological observation of the pancreas is limited to the islets of Langerhans, namely the diameter of the islets of Langerhans. The results of the analysis of data on the administration of EES to the body weight of the rats showed that there was no significant difference in each group P1, P2, P3 and P4. The results of data analysis of EES administration on the relative weight of the pancreas showed that P2 was significantly different from the P1 group, P3 group and P4 group. Meanwhile, the P1 group was not significantly different from the P3 and P4 groups. The results of histological observations of the pancreas induced by Rhodamin B showed that the cells were damaged in the form of necrosis which was indicated by the presence of empty spaces in the tissue. The results of the average diameter of the islets of Langerhans showed that there was no significant difference in each group.

Keywords : Ethanol Extract Of *Saurauia Vulcani*, Korth., Rhodamin B, Langerhans Island Histology, Relative Organ Weight, Body Weight