

**IDENTIFIKASI KARAKTER MORFOLOGI, KADAR BIOAKTIF DAN
AKTIVITAS INHIBITOR ENZIM ALFA GLUKOSIDAE AKSESI
TANAMAN KUMIS KUCING (*Orthosiphon stamineus* BENTH)
(Identification of Morphology and Bioactive Characters, and Inhibitor
Glucosidase Activity of Cat's Whiskers (*Orthosiphon Stamineus* Benth)**

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ABSTRAK

Kumis kucing merupakan tanaman obat yang telah diperdagangkan dan masuk dalam industri fitofarmaka. Keragaman kumis kucing di berbagai wilayah di Indonesia belum terdokumentasikan dengan baik sehingga diperlukan upaya untuk melakukan identifikasi karakter, baik morfologi maupun kadar bioaktif dan khasiatnya sebagai inhibitor enzim alfa glukosidase sehingga dapat membantu pengembangan varietas dan pemanfaatannya. Hasil karakterisasi morfologi menunjukkan bahwa terdapat keragaman plasma nutfah kumis kucing, namun relatif sempit. Semua aksesori tanaman kumis kucing mengandung sinensetin, dengan kadar sinensetin tertinggi adalah aksesori Dramaga klon bunga ungu, diikuti aksesori Dramaga klon bunga putih. Ekstrak etanol kumis kucing aksesori Nagrak dapat digunakan sebagai inhibitor enzim α -glukosidase dengan daya hambat lebih dari 50% pada konsentrasi 10000 ppm. Ekstrak air kumis kucing mempunyai aktivitas sebagai inhibitor terhadap enzim α -glukosidase yang lebih kecil dibandingkan ekstrak etanol.

Kata kunci: Sinensetin, alfa glukosidase, karakterisasi morfologi.

ABSTRACT

Cat's whiskers (*Orthosiphon stamineus* Benth) is a medicinal plant that has been traded and included in the industry of phytopharmaca. The diversity of cat whiskers in various regions in Indonesia has not been well documented, so it is necessary to identify the characters, both morphological and levels of bioactive, and its usefulness as an inhibitor of enzyme α -glucosidase that can help the development of its varieties and utilization. Morphological characterization results indicate that there is a diversity of cat whiskers germplasm, but relatively narrow. All accessions containing sinensetin, with the highest levels of sinensetin derived from accession of Dramaga, that is purple flower clones followed by white flower clones. An Ethanol extract of cat's whiskers from Nagrak accession can be used as an inhibitor of the α -glucosidase enzyme with inhibition of more than 50% at a concentration of 10000 ppm. Water extract of cat's whiskers had inhibitor activity less than ethanol'extract.

Keywords: Sinensetin, alpha glukosidase, morphological charachterisation.