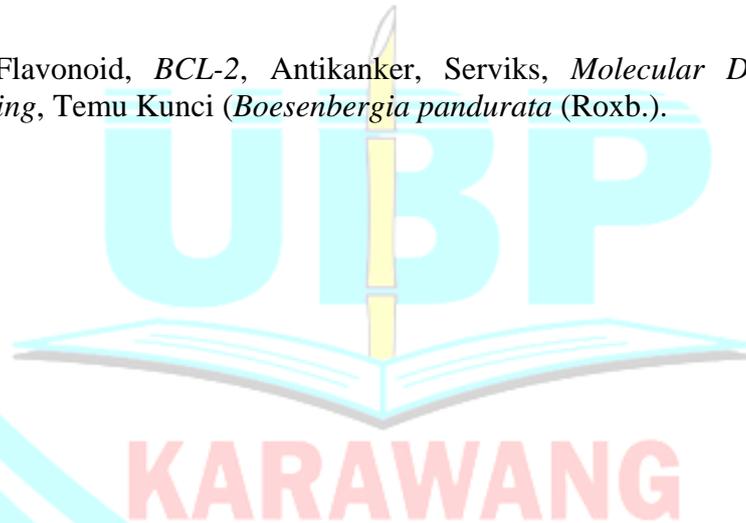


## ABSTRAK

Temu kunci (*Boesenbergia pandurata* (Roxb.) merupakan tumbuhan yang berpotensi memiliki kemampuan untuk menghambat perkembangan kanker yang telah diteliti memiliki aktivitas sebagai antikanker. Tanaman ini menunjukkan sifat antikanker melalui penghambatan proliferasi sel dan induksi apoptosis. Penelitian ini bertujuan untuk mengidentifikasi turunan flavonoid dari rimpang temu kunci mempunyai interaksi yang stabil terhadap reseptor *BCL-2* sebagai kandidat antikanker. Metode dilakukan melalui *molecular docking* menggunakan program *AutodockTools 5.2* dan kestabilan interaksi melalui simulasi *molecular dynamic* menggunakan program *desmond*. Hasil diperoleh dari situs *PubChem* sebanyak 20 turunan flavonoid dan model reseptor diunduh melalui *Protein Data Bank* (4AQ3). Hasilnya menunjukkan bahwa senyawa naringin dengan protein 4AQ3 membentuk ikatan stabil.

**Kata Kunci:** Flavonoid, *BCL-2*, Antikanker, Serviks, *Molecular Dynamic*, *Molecular Docking*, Temu Kunci (*Boesenbergia pandurata* (Roxb.).



### **ABSTRACT**

*Temu kunci (Boesenbergia pandurata (Roxb.)) is a plant that has the potential to inhibit the development of cancer which has been studied to have anticancer activity. This plant shows anticancer properties through inhibition of cell proliferation and induction of apoptosis. This study aims to identify flavonoid derivatives from temu kunci rhizomes that have stable interactions with BCL-2 receptors as anticancer candidates. The method was carried out through molecular docking using the AutodockTools 5.2 program and the stability of the interaction through molecular dynamic simulations using the desmond program. The results were obtained from the PubChem site as many as 20 flavonoid derivatives and receptor models downloaded through the Protein Data Bank (4AQ3). The results showed that the naringin compound with the 4AQ3 protein forms a stable bond.*

**Keywords:** *Flavonoid, BCL-2, Anticancer, Cervix, Molecular Dynamic, Molecular Docking, Temu Kunci (Boesenbergia pandurata (Roxb.)).*

