BAB V
KESIMPULAN DAN SARAN

V.1 Kesimpulan

1. Proses ekstraksi protein biji jarak menghasilkan protein murni bebas lemak dengan rendemen sebesar 68,36%. Ekstrak protein yang dihidrolisis enzimatis dengan menggunakan enzim tripsin menghasilkan nilai derajat hidrolisis sebesar 33,51%.
2. Fraksinasi dengan menggunakan resin penukar kation dielusi dengan menggunakan buffer pH 3-9 dimana fraksi pH 3 dan 4 diujikan pada bakteri *E.coli dan S.aureus* memiliki zona hambat yang paling besar diantara yang lain.
3. Nilai IC50 fraksi pH 3 dan pH 4 terhadap *S.aureus* masing-masing yaitu didapat nilai sebesar 4,25 dan 17,96 ppm. Sedangkan pengujian pH 3 dan 4 terhadap *E.coli* menghasilkan nilai sebesar 22,50 dan 25,74 ppm.
4. Hasil identifikasi peptida pada fraksi pH 3 menghasilkan urutan peptida AGVGIKPR, GAVVAPRK, GTPDDMGGAGAGNPPDDK dan ALQAPGR. Sedangkan pada fraksi pH 4 ditemukan urutan peptida AAGASG

V.2 Saran

Dari hasil penelitian ini didapat 3 urutan peptida pada fraksi pH 3 dan 1 urutan peptida pada fraksi pH 4 yang terbukti aktif antibakteri. Perlu dilakukan penelitian lanjutan dengan menggunakan metode in silico berupa docking molekuler maupun dengan metode in vitro dengan pemurnian peptida untuk menunjukan urutan peptida mana yang benar benar memiliki aktivitas.

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