

INTISARI

INDRIYANA, 2016, FORMULASI GEL EKSTRAK DAUN BELUNTAS (*Pluchea indica* Less.) SEBAGAI ANTIOKSIDAN DENGAN KOMBINASI GELLING AGENT KARBOPOL 940 DAN CMC-Na, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Daun beluntas (*Pluchea indica* Less.) memiliki aktivitas antioksidan karena mengandung senyawa fitokimia seperti tanin, sterol, hidrokuinon, dan flavonoid. Antioksidan yang paling baik diaplikasikan dalam sediaan gel. Penelitian ini bertujuan untuk mengetahui apakah ekstrak daun beluntas bisa dibuat sediaan gel dengan variasi basis konsentrasi karbopol 940 dan CMC-Na serta mengetahui apakah gel ekstrak daun beluntas memiliki aktivitas antioksidan.

Ekstrak daun beluntas diperoleh dengan metode maserasi. Gel ekstrak daun beluntas dibuat dalam 5 formula dengan variasi basis karbopol 940 dan CMC-Na. Gel yang dihasilkan diuji stabilitas dan sifat mutu fisik meliputi organoleptis, homogenitas, daya sebar, daya lekat, viskositas, dan pH. Aktivitas antioksidan diuji dengan metode DPPH.

Hasil penelitian menunjukkan bahwa nilai IC_{50} ekstrak, formula 1 sampai 5 berturut-turut yaitu 9,376 ppm; 91,833 ppm; 85,901 ppm; 84,528 ppm; 85,310 ppm; 82,035 ppm. Ekstrak dan semua formula tersebut memiliki aktivitas antioksidan yang kuat. Penambahan karbopol 940 dan CMC-Na mengalami penurunan pada tiap formula pada sifat mutu fisik, stabilitas, dan aktivitas antioksidan. Gel dengan konsentrasi karbopol 940 1% dan CMC-Na 1% memiliki sifat mutu fisik, stabilitas dan aktivitas antioksidan yang baik.

Kata kunci : Ekstrak daun beluntas, gel, DPPH, antioksidan

ABSTRACT

INDRIYANA, 2016, ANTIOXIDANT GEL FORMULATIONS OF BELUNTAS LEAVES (*Pluchea Indica* Less.) EXTRACT COMBINATION WITH AGENT GELLING CARBOPOL 940 AND CMC-Na, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Beluntas leaves (*Pluchea indica* Less.) has antioxidant activity because they contain phytochemical compounds such as tannins, sterols, hydroquinone, and flavonoids. Antioxidants are best applied in the preparation of gel. The aims of this study to gel formulation of beluntas leaf extract variation of concentration carbopol 940 and CMC-Na as well as determine the gel beluntas leaf extract has antioxidant activity.

Beluntas leaves extract was obtained by maceration method. Gel of beluntas leaves extract was made in five formulas with variations concentration of carbopol 940 and CMC-Na. The obtained gel was tested its stability and physical quality properties consisting organoleptic, homogeneity, viscosity, pH. The antioxidant activity was tested by with DPPH method.

The results showed that IC₅₀ values of the extracts, the formula 1 to 5 respectively, were 9.376 ppm; 91.833 ppm; 85.901 ppm; 84.528 ppm; 85.310 ppm; 82.035 ppm. The extracts and all formula have strong antioxidant activity. The addition of carbopol 940 and CMC-Na decreased in each formula on the nature of physical quality, stability, and antioxidant activity. The gel with carbopol 940 concentration of 1% and CMC-Na 1% possess physical quality, stability and good antioxidant activity.

Keywords: beluntas leaves extract, gel, DPPH, antioxidant