

## Uji Aktivitas Antioksidan N-Metil Kitosan Berkelarutan Tinggi

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| <b>Title</b>          | Uji Aktivitas Antioksidan N-Metil Kitosan Berkelarutan Tinggi   |
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| <b>Accreditation</b>  |   |
| <b>Abstract</b>       | <p>Telah dilakukan uji aktivitas antioksidan dari N-metil kitosan yang memiliki kelarutan tinggi. Uji aktivitas antioksidan dilakukan dengan menggunakan metode DPPH (1,1-diphenyl-2-pikrilhidrazil) dan metode FTC (ferric thiocyanate). Optimasi sintesis dilakukan untuk memperoleh N-metil kitosan dengan kelarutan tinggi. Hasil penelitian menunjukkan bahwa N-metil kitosan yang berkelarutan paling tinggi adalah N-metil kitosan yang disintesis dengan 1,7 mL formaldehid 10%. Berdasarkan hasil uji aktivitas antioksidan menggunakan metode DPPH dapat diketahui bahwa N-metil kitosan merupakan antioksidan sedang dengan nilai IC50 sebesar 145,398 ppm. Hasil pengujian antioksidan metode FTC menunjukkan bahwa N-metil kitosan memiliki kemampuan menghambat terbentuknya senyawa radikal bebas yang disebabkan oleh oksidasi asam lemak.</p> <p>An Antioxidant Activity Test of High Solubility N-Methyl Chitosan. An antioxidant activity test of high solubility N-methyl chitosan has been performed. The antioxidant activity test was performed using DPPH (1,1-diphenyl-2-pikrilhidrazil) and FTC method (ferric thiocyanate). The synthesis optimization was performed to obtain high N-methyl chitosan solubility. The results showed that N-methyl chitosan with the highest solubility in 1% acetic acid solvent was N-methyl chitosan which was synthesized with 1.7 mL formaldehyde 10%. Based on the results of antioxant activity test using DPPH method can be seen that N-methyl chitosan is a medium antioxidant with IC50 value of 145.398 ppm. The result of antioxidant test of FTC method showed that N-methyl chitosan has antioxidant activity with tendency to increase along with the increase of N-methyl chitosan concentration.</p> |
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