

**Development *Eudragit*® L 100-55 Nanoparticle Carrier Based With  
Curcumin As an Active Ingredients**

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**Marline Abdassah, Dolih Gojali, Rida Rufaidah**

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## Development *Eudragit*® L 100-55 Nanoparticle Carrier Based With Curcumin As an Active Ingredients

Marline Abdassah, Dolih Gozali, Rida Rufaidah  
Fakultas Farmasi Universitas Padjadjaran, Jatinangor, Sumedang

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### ABSTRACT

*In recent years, the development of innovative drug carrier system has done to address the problem of poor solubility of the active substance. One of them is polymer based nanoparticle carrier system wich can improve the solubility and bioavailability of a substance due to nanometer size. In this research, Nanoparticles prepared by the bottom up methode, with the polymer dispersion. Formulation nanoparticles carrier system has made with polymer Eudragit® L 100-55 (120 mg, 220 mg, 320 mg), 0.5% PVA solution (w / v) 300 ml in distilled water and 30 ml 95% ethanol. Then characterized using particle size analyzer (PSA) results the smallest size in formula 1 (120 mg Eudragit® L 100-55),  $83.8 \pm 21.9$  nm. Once added curcumin (12 mg, 15 mg, 20 mg) in formula 1, the smallest size available on formula 4 (curcumin 12 mg),  $104.7 \pm 26.4$  nm with entrapment efficiency 98.68%. Meaning, the entrapment of curcumin by polymer has been going well.*

Keywords : *Eudragit*® L 100-55, nanoparticle, Curcumin

