

**ABSTRACT****The Analgesic Activity Test of 4-Bromobenzoylurea Compound in Mice (*Mus musculus*) Using Writhing Test Method**

The research purposed to synthesize 4-Bromobenzoylurea and to determine its analgesic activity in mice (*Mus musculus*) using writhing test method was done. The Schotten-Baumann reaction was used for reaction between 4-bromobenzoylchloride and urea with adding trietilamine base. It could be concluded that the product was pure from the result of Thin Layer Chromatography and melting point analysis. According to the result of infrared and ultraviolet spectrophotometric analysis, it was concluded that the synthesized compound was 4-bromobenzoylurea. The analgesic activity was tested using writhing test method in three different doses 50, 100 and 200 mg/kg mice body-weight. The result of analgesic activity test was writhing frequency, which was analyzed to determine pain-inhibition percentage and then ED<sub>50</sub>. The pain-inhibition percentage of 4-bromobenzoylurea, benzoylurea, and acetic salicylic acid compound, each in three different doses was 22,25%; 44,74%; 56,46%; 21,77; 43,78%; 54,07% and 32,78%; 58,13%; 77,51%. The ED<sub>50</sub> of 4-bromobenzoylurea, benzoylurea, and acetic salicylic acid was 143,14; 154,54 and 82,70 mg/kg mice body-weight. According to the result of writhing frequency one-way analysis of variance and LSD test, it could be concluded that the 4-bromobenzoylurea compound has the analgesic activity, that as strong as benzoylurea compound but weaker than acetic salicylic acid analgesic activity.

Keyword : 4-Bromobenzoylurea, Benzoylurea, Writhing test.