



## Synthesized and Antibacterial Activity of Derivatives 7-Chloro-4-hydroxy-2-oxo-2H-chromene-3-carbaldehyde

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Received April 26, 2015; Accepted June 24, 2015

**Abstract:** In present paper, we report the organic syntheses of four compounds from 7-Chloro-4-hydroxy-2-oxo-2H-chromene-3-carbaldehyde and describe the results of antibacterial activity of purified compounds. Compounds 4,7-Dichloro-2-oxo-2H-chromene-3-carbaldehyde (1a), 4,7-Bis-(3-hydroxy-propylamino)-2-oxo-2H-chromene-3-carbaldehyde (2a), {[4,7-Bis-(3-hydroxy-propylamino)-2-oxo-2H-chromen-3-ylmethylene]-amino}-acetic acid (3a), {[2-Oxo-4,7-bis-(3-oxo-propylamino)-2H-chromen-3-ylmethylene]-amino}-acetic acid (4a), 2-Amino-4-[4-(3-amino-3-carboxy-propylamino)-3-(carbamoylmethylimino-methyl)-2-oxo-2H-chromen-7-ylamino]-butyric acid (5a), have been synthesized and characterized using melting points, IR spectra, <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra. The antibacterial activity of synthesized compounds and streptomycin and cefalexine at concentrations of 2mg/ml, 3mg/ml and 5mg/ml, have been evaluated against three strains of bacterial culture; *Staphylococcus aureus*, *E. coli* and *Bacillus cereus*. The compounds show bacteriostatic and bactericidal activity.

**Keywords:** Coumarine derivatives, antibacterial activity, IR, <sup>1</sup>H-NM, <sup>13</sup>C-NMR, Streptomycine.

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