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Anti-complementary Activity of Aliphatic Fatty Acids

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Complement system is known to play a major role in the inflammation activation. Complement is a series of proteins found in blood serums that attack bacterial cells or other foreign cells, causing lysis or leakage of cellular constituents as a result of damages to the cell membrane. To elucidate the role of aliphatic fatty acids as anti-complementary substances, the aliphatic fatty acids were studied. Saturated fatty acids showed significant anti-complementary activities on the classical pathway of the complement system. All fatty acids revealed concentration-dependent activities. For C9 through C13 fatty acids, their activities increased with increasing concentration of fatty acid, while those for C14 through C17 decreased. Among the fatty acids examined, those of C12 and C13 presented the strongest activities.

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Antimicrobial Activity and Characterization of Extracts from *Persicaria blumei*

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Antimicrobial activities of five extract fractions from the aerial part of *Persicaria blumei* was investigated by diffusion method against several microorganisms, nine species of Gram positive and twelve species of Gram negative. Solvent extract yield of the powder of vacuum dried *Persicaria blumei* was 7.80% of ethanol fraction, 1.91% chloroform fraction, 0.84% ethylacetate fraction, 1.29% butanol fraction and 3.19% aqueous fraction. All extracts exhibited potent antimicrobial activity against *Bacillus cereus, Bacillus megaterium, Staphylococcus aureus, Enterobacter cloacae, Escherichia coli, Klebsiella pneumonie, Salmonella enteritidis, Salmonella thyphimurium* and *Vibrio parahaemolyticus*. The ethanol fraction of 5.0㎎/disc showed antimicrobial activity, chloroform fraction of 2.5㎎/disc, ethyl acetate fraction of 2.5㎎/disc, butanol fraction of 2.5㎎/disc and aqueous fraction of 5.0㎎/disc. In particular, antimicrobial activity of ethlyacetate extract was stronger than the other extracts.