

Tissue Factor Inhibitory Flavonoids from the Fruit of *Chaenomeles sinensis*

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Tissue factor (TF, tissue thromboplastin or coagulation factor III) accelerates the blood clotting, activating both the intrinsic and the extrinsic pathways to serve as a cofactor. In order to isolate TF inhibitor from the fruit of *Chaenomeles sinensis*, an activity-guided purification was carried out to yield five active of flavonoids, luteolin-7-glucuronide (**1**) ($IC_{50} = 22.4 \mu\text{g/unit}$), hyperin (**2**) ($IC_{50} = 16.5 \mu\text{g/unit}$), hoveirichoside C (**3**) ($IC_{50} = 16.8 \mu\text{g/unit}$), quercitrin (**4**) ($IC_{50} = 95.4 \mu\text{g/unit}$) and avicularin (**5**) ($IC_{50} = 39.7 \mu\text{g/unit}$). Another compounds such as apigenin-7-glucuronide methyl ester (**6**), genistein-7-glucoside (**7**), luteolin-4'-glucoside (**8**), (-)-epicatechin (**9**), luteolin-3'-methoxy-4'-glucoside (**10**), luteolin-7-glucuronide methyl ester (**11**) and tricetin-3'-methoxy-4'-glucoside (**12**) were inactive in the assay system used. Structures of these compounds were elucidated by spectral analysis and chemical conversion. Among them, compounds **3** and **12** were isolated for the first time from this plant and compound **12** is a new flavonoid.

Key words: *Chaenomeles sinensis* (Rosaceae), tissue factor inhibitors