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BOOK OF ABSTRACTS

New Galloylbergenin from *Bergenia crassifolia* with Anti-Lipid Droplet Accumulation Activity

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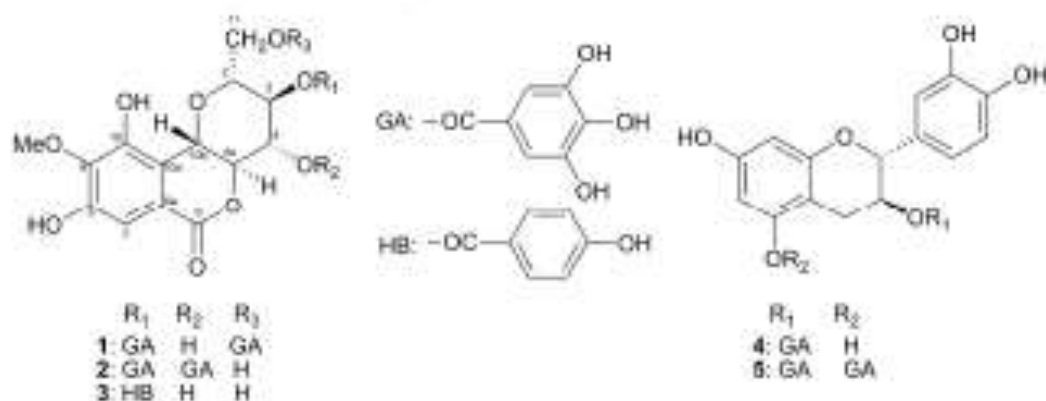
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Bergenia crassifolia (Saxifragaceae) has been used for treatments of bronchitis, gastroenteritis, diarrhea, hemostasia, and metrorrhagia in Kazakh traditional medicine. Kazakh shepherds use black dried leaves of the plants as a tea for health care.¹ The phytochemical constituents including bergenin, tannins, phenols, polysaccharide, and coumarins with some pharmacological actions such as antioxidant, antimicrobial, antiviral, anti-inflammatory, immunostimulating, and lipase inhibiting activities have been reported.²⁻⁴

Our research for novel lead natural products from Kazakh medicinal plants led to isolation of a new galloylbergenin 3, 11-di-O-galloylbergenin (1), along with 4, 11-di-O-galloylbergenin (2),⁵ 11-O-p-hydroxybenzoyl bergenin (3),⁶ (+)-catechin 3-O-gallate (4),⁶ and (+)-catechin 3,5-di-O-gallate (5)⁶ from the roots of *B. crassifolia*. Anti-lipid accumulation activity for 1 - 5 were evaluated. 3, 11-Di-O-galloylbergenin (1) and 4, 11-di-O-galloylbergenin (2) exhibited moderate anti-lipid accumulation activities with IC₅₀ values of 38.40 μM and 60.50 μM, respectively.



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