New purine alkaloids from the Red Sea marine tunicate Symplegma rubra

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Abstract:

lkaloids namely 6-methoxy-7,9-dimethyl-8-oxoguanine (1), 6-methoxy-9-methyl-8-oxoguanine (2), and 2-methoxy-7-methyl-8-oxoadenine (4) together with seven known compounds: 6-methoxy-7- methyl-8-oxoguanine (3), 9-methyl-8-oxoadenine (5), 7-methyl-8-oxoadenine (6), 8-oxoadenine (7), 3- methylxanthine (8), inosine (9), and homarine (pyridinium-2-carboxylic acid-1-methyl) (10). Compound 6 was reported here for the first time from a natural source. The structure determination of the compounds was accomplished by extensive interpretation of their spectroscopic data including 1D (1H and 13C) and 2D (1H□1H COSY, HSQC, and HMBC) NMR and high-resolution mass spectral data. The isolated compounds were evaluated for their protein kinase inhibitory activity against different kinases (CDK5, CK1, DyrK1A, and GSK3) at 10 mg/mL. The compounds showed moderate activity against these kinases

Keywords:

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