Supplementary Information

Facile Synthesis and *in vitro* Antitumor Activity of 5,7-Dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one

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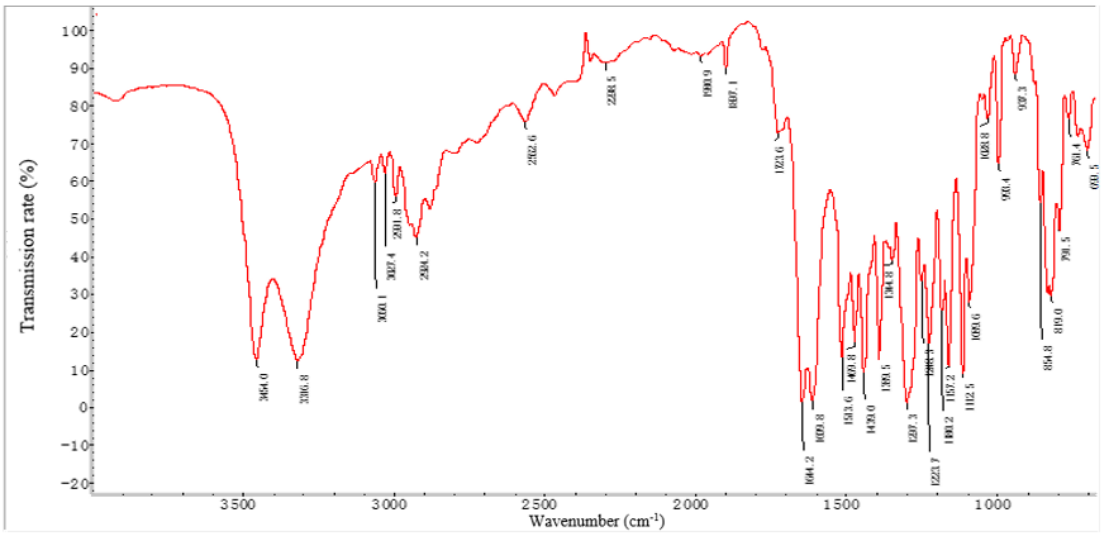

Figure S1. FTIR spectrum (KBr) of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

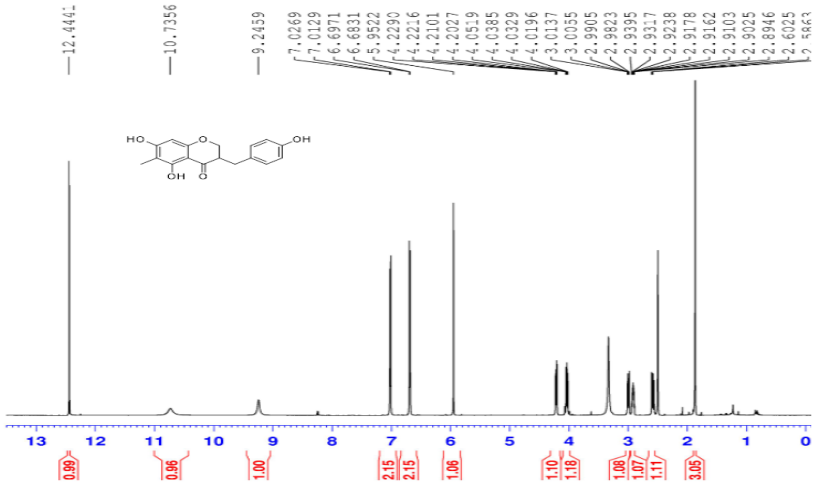

Figure S2. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

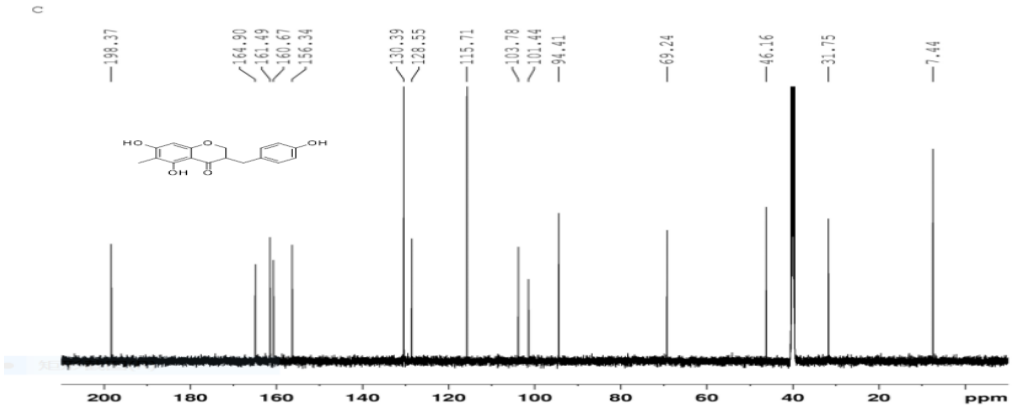

Figure S3. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

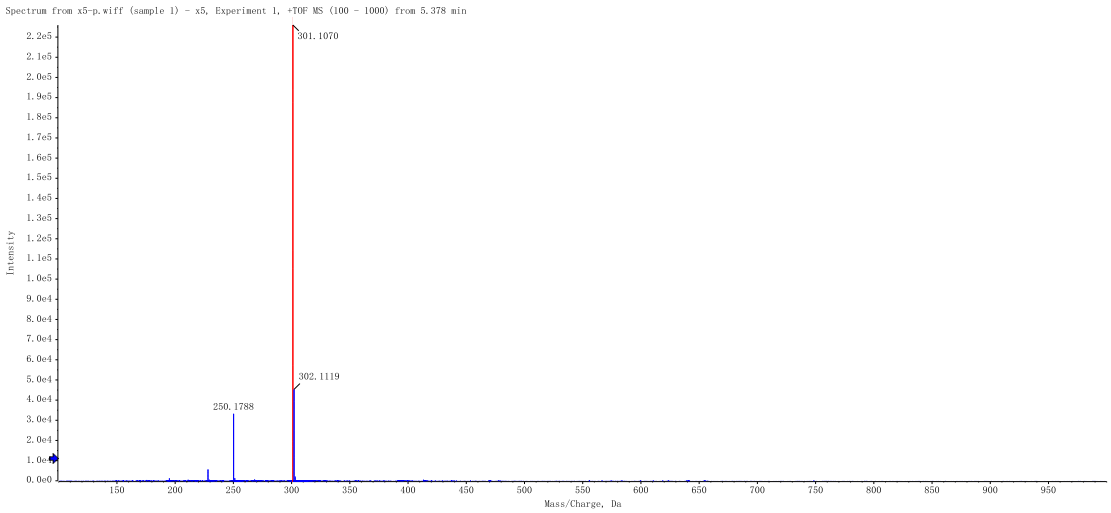

Figure S4. LC-HRMS spectrum of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

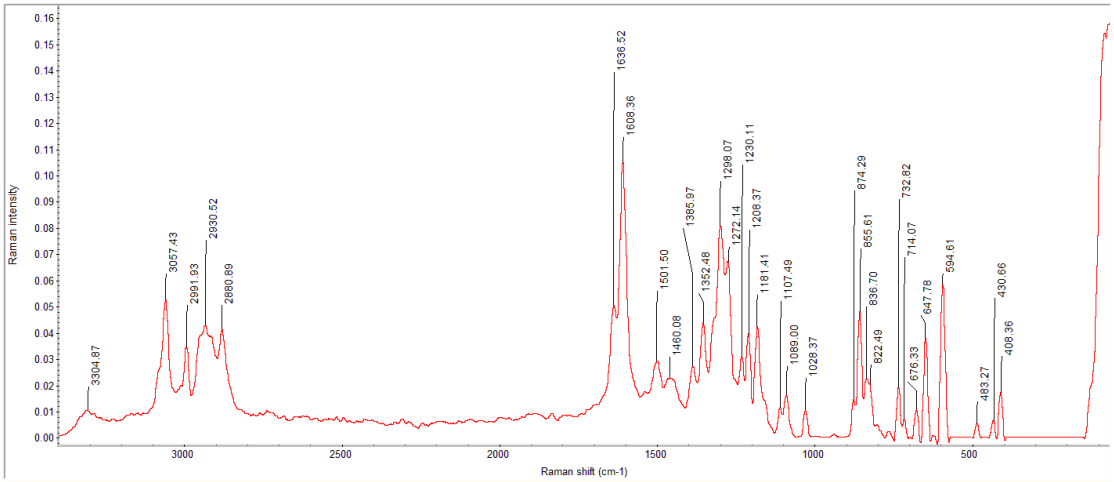

Figure S5. Raman spectrum of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

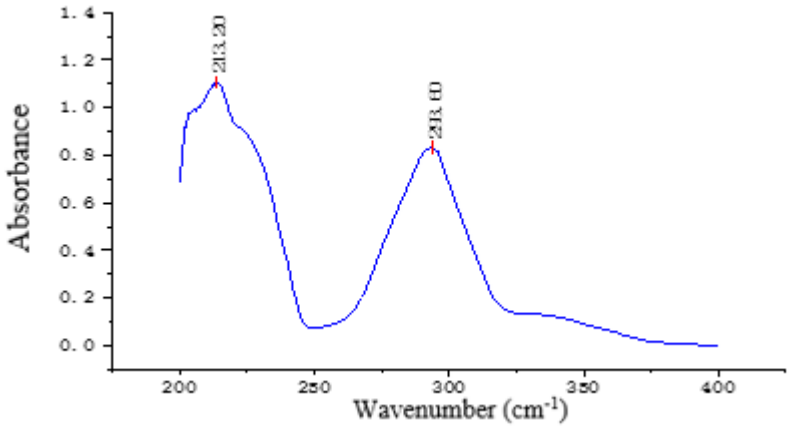

Figure S6. UV-Vis spectrum of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

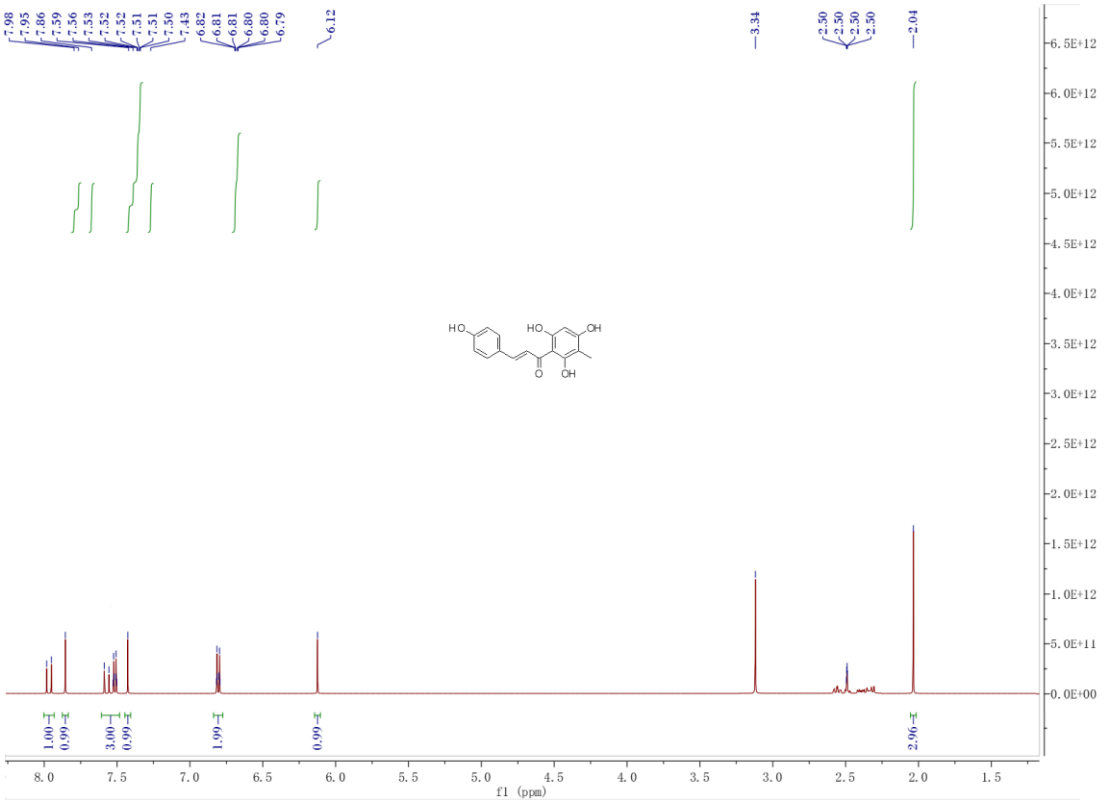

Figure S7. [1]H NMR spectrum (600 MHz, DMSO-d_6) of (*E*)-3-(4-hydroxyphenyl)-1-(2,4,6-trihydroxy-3-methylphenyl) prop-2-en-1-one.

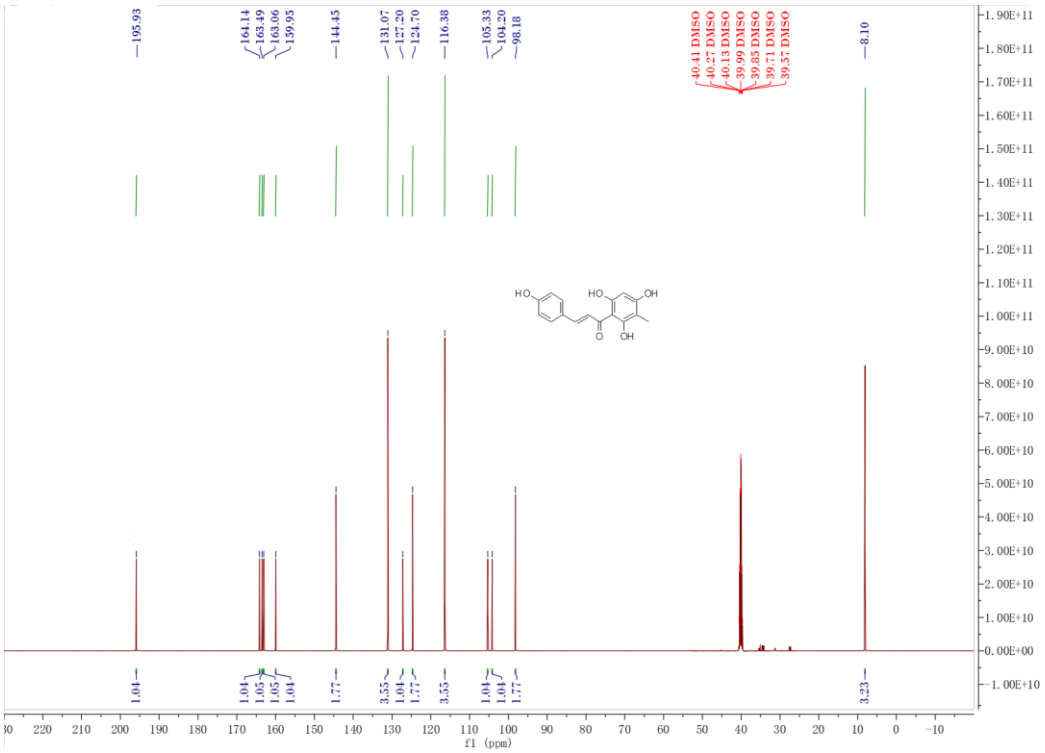

Figure S8. [13]C NMR spectrum (150 MHz, DMSO-d_6) of (*E*)-3-(4-hydroxyphenyl)-1-(2,4,6-trihydroxy-3-methylphenyl) prop-2-en-1-one.

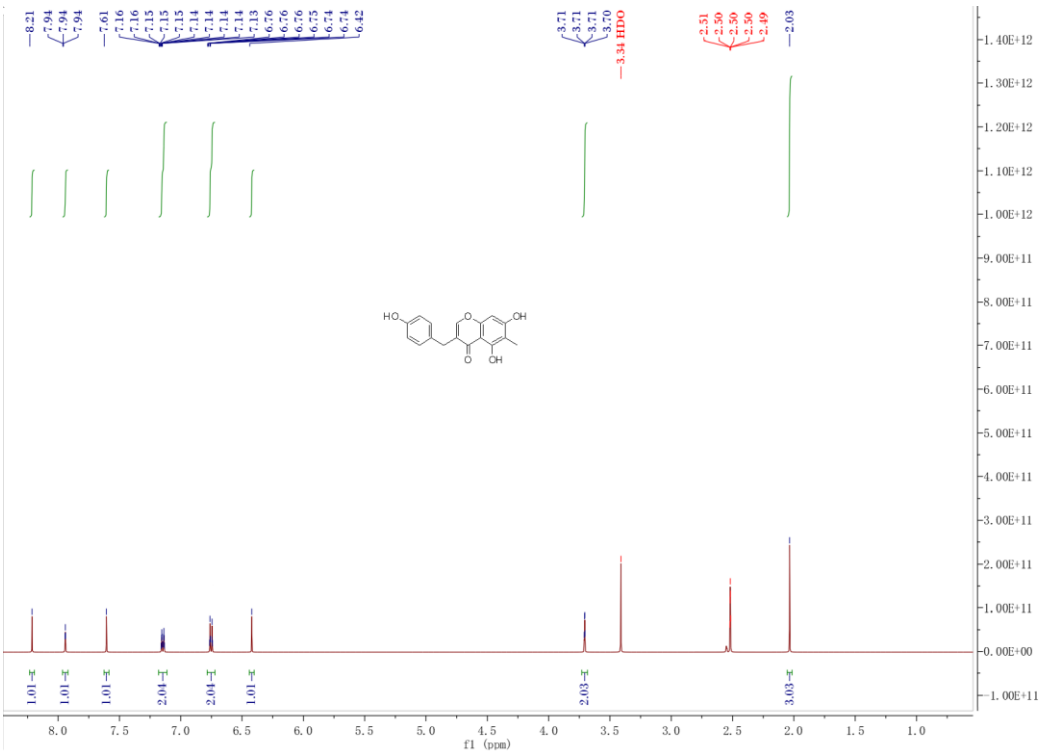

Figure S9. [1]H NMR spectrum (600 MHz, DMSO-d_6) of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

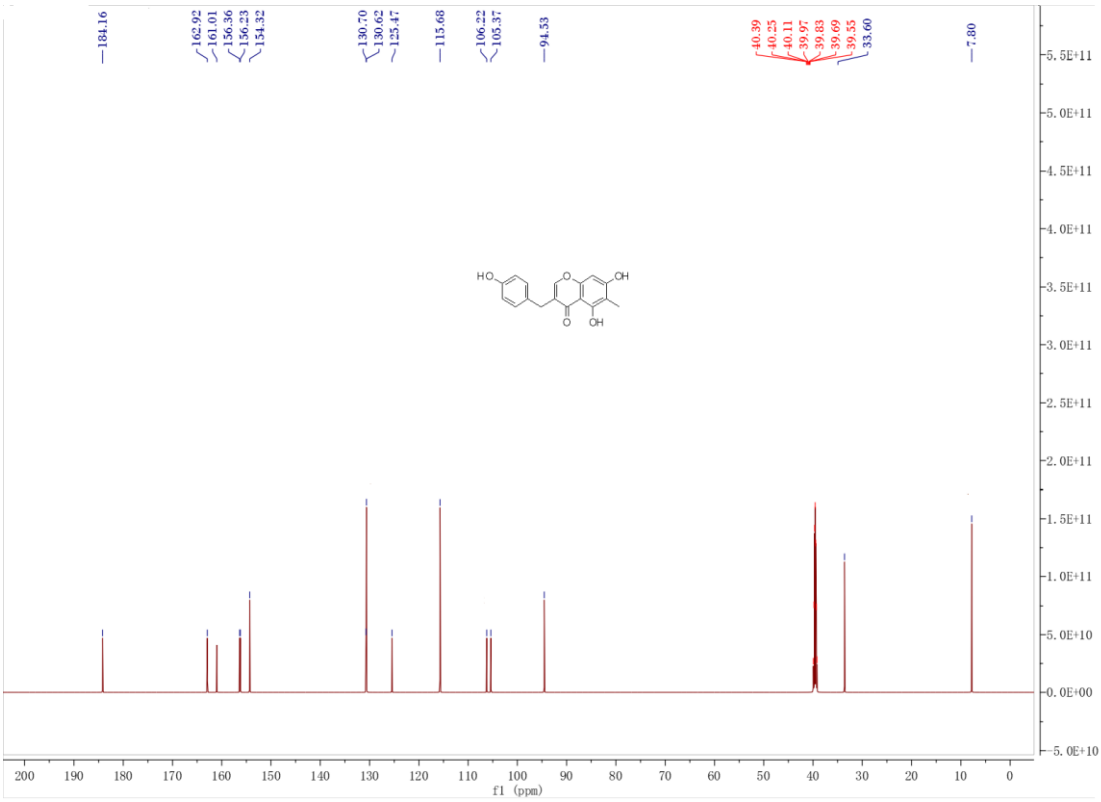

Figure S10. [13]C NMR spectrum (150 MHz, DMSO-d_6) of 5,7-dihydroxy-3-(4-hydroxybenzyl)-6-methylchroman-4-one.

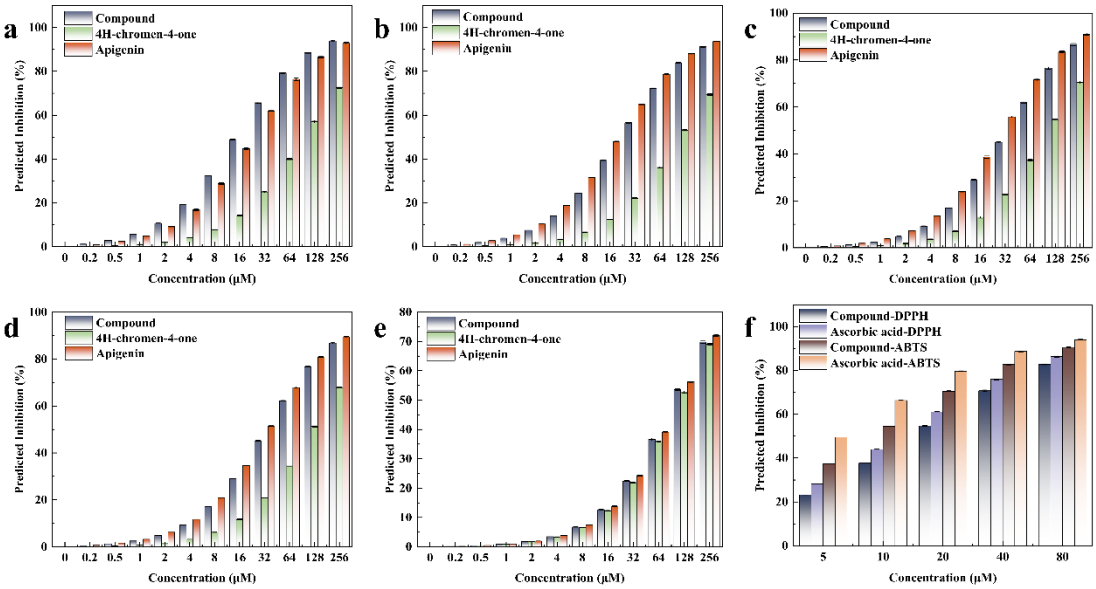

Figure S11. Comparative cytotoxic and antioxidant activities of the synthesized compound, 4H-chromen-4-one, and apigenin. (a-e) Dose-dependent inhibition of cell viability in HeLa, HepG2, A549, SGC-7901, and L02 cells, respectively; (f) DPPH and ABTS radical scavenging activities of the compound and ascorbic acid at different concentrations.