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### ***In-silico* design, synthesis and biological evaluation of 4-aryl-4H-chromene derivatives as CDK-2 inhibitors: A molecular approach to finding a lead for breast cancer**

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### **SUPPLEMENTARY MATERIAL**

#### **IN-SILICO DESIGN, SYNTHESIS AND BIOLOGICAL EVALUATION OF 4-ARYL-4H-CHROMENE DERIVATIVES AS CDK-2 INHIBITORS: A MOLECULAR APPROACH TO FINDING A LEAD FOR BREAST CANCER**

Below are the spectral data's containing IR, MS and <sup>1</sup>HNMR for the six synthesized compounds, including 2C, 2N, 2J, 2P, 2F and 1L.



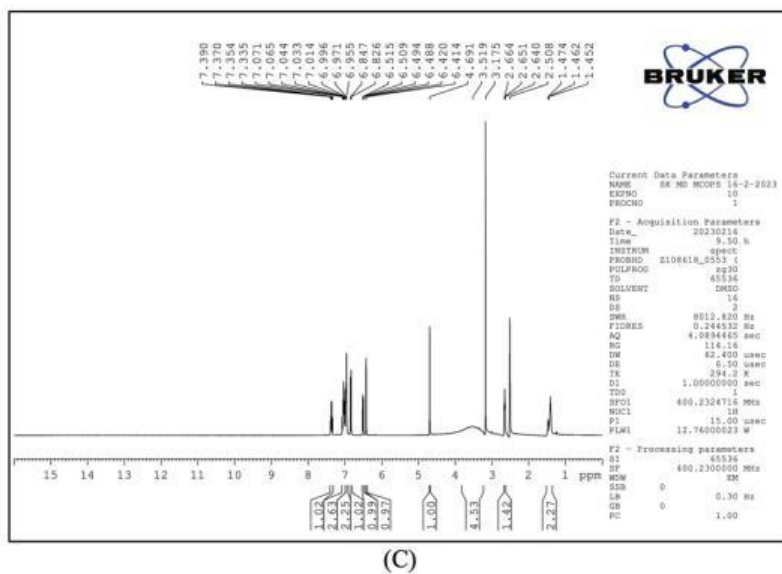
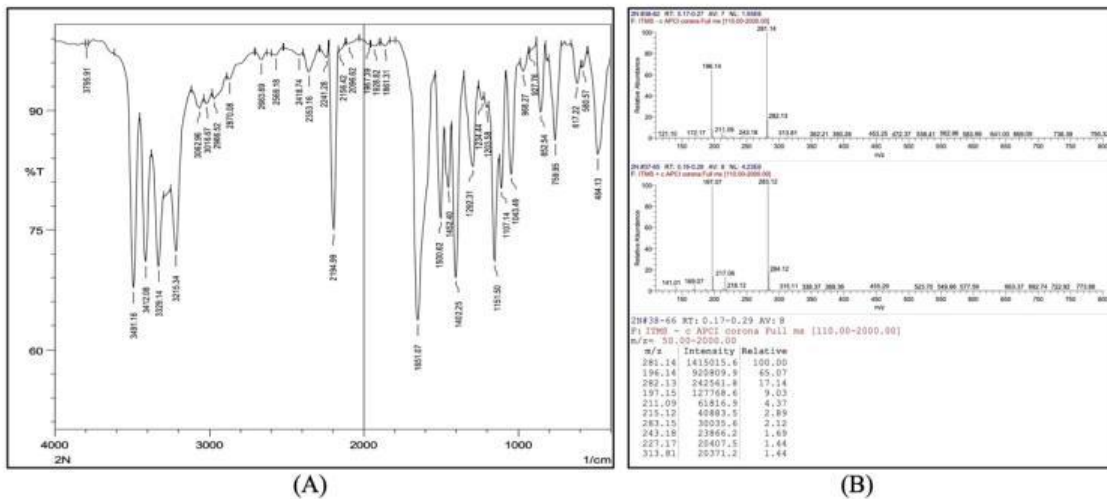


Figure S2. Spectral data of compound 2N: (A) IR, (B) MS, (C) <sup>1</sup>H NMR.

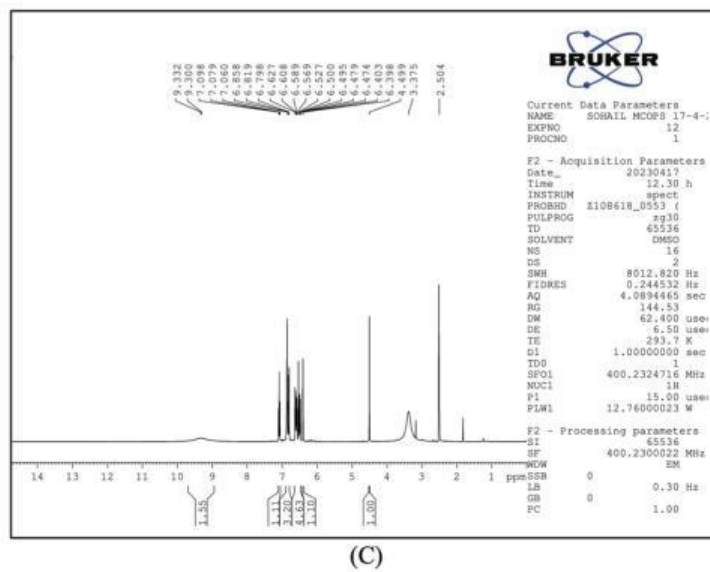
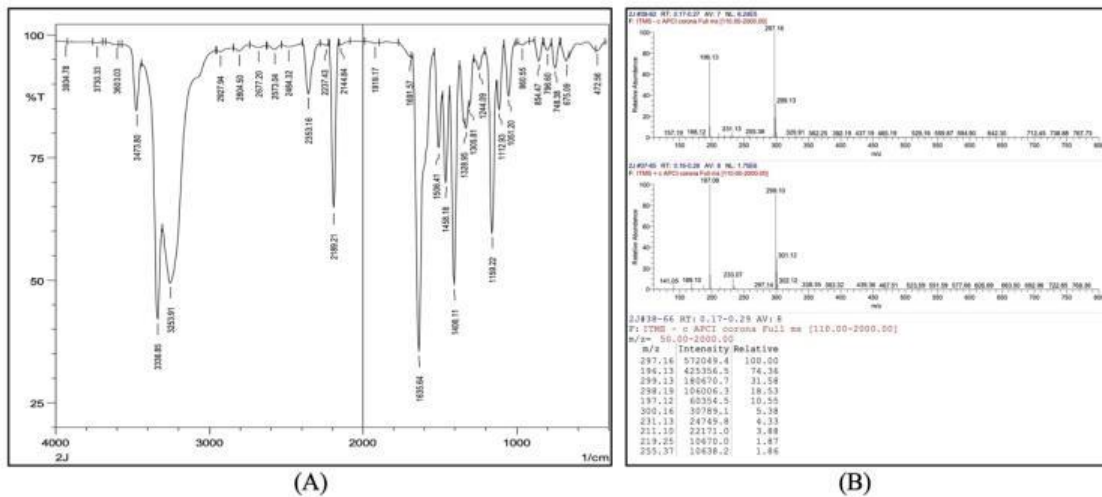


Figure S3. Spectral data of compound 2J: (A) IR, (B) MS, (C) <sup>1</sup>HNMR.

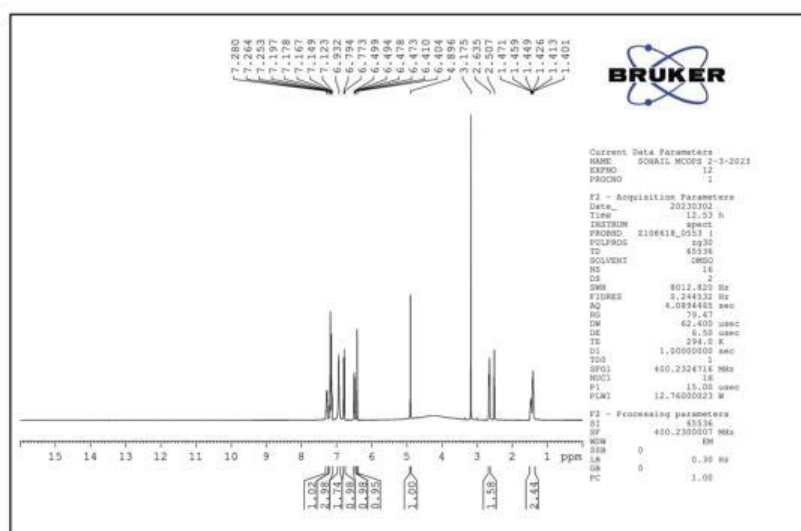
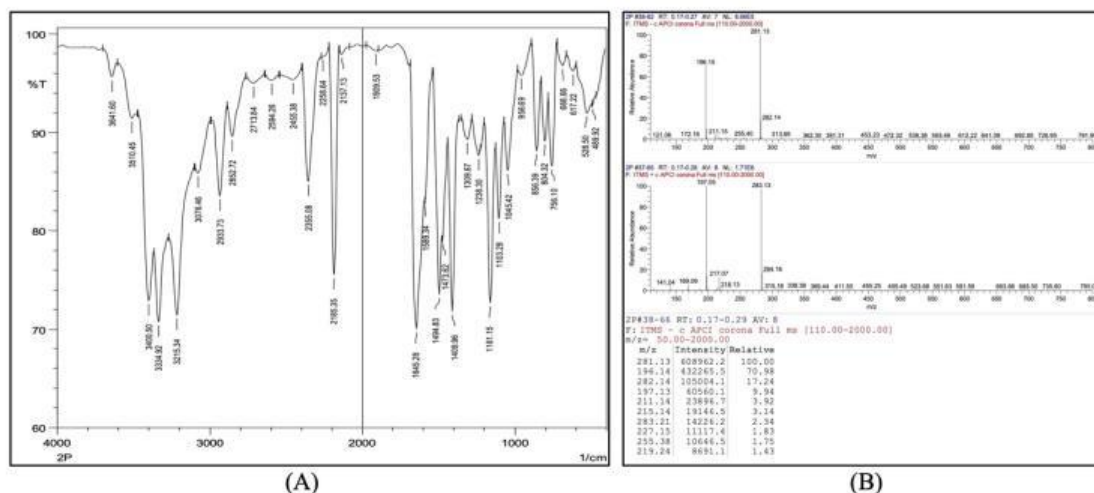


Figure S4. Spectral data of compound 2P: (A) IR, (B) MS, (C) <sup>1</sup>H NMR.

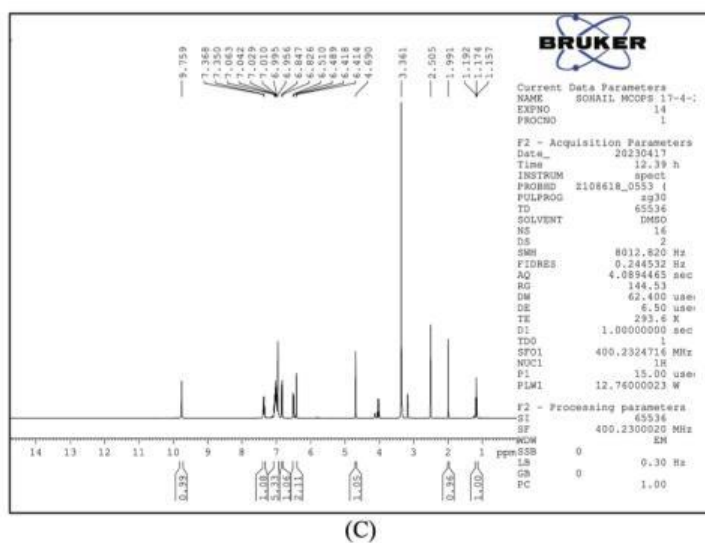
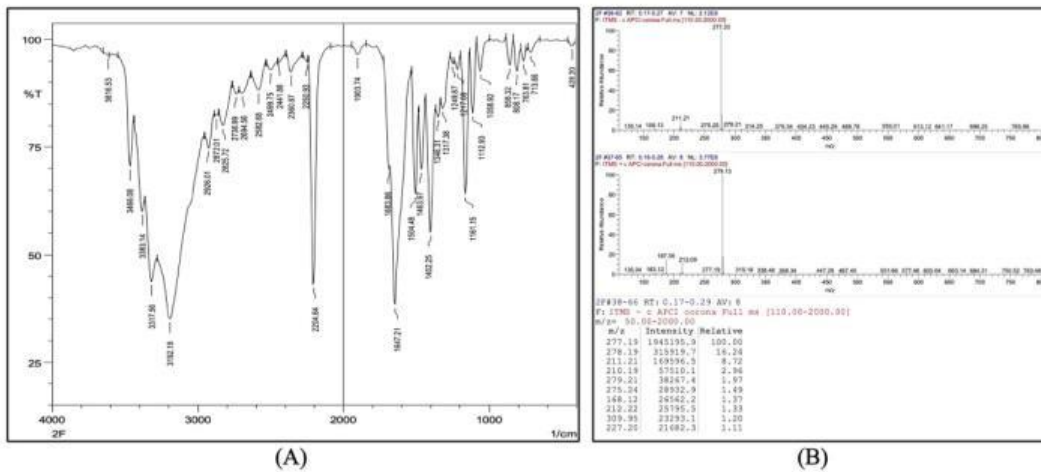
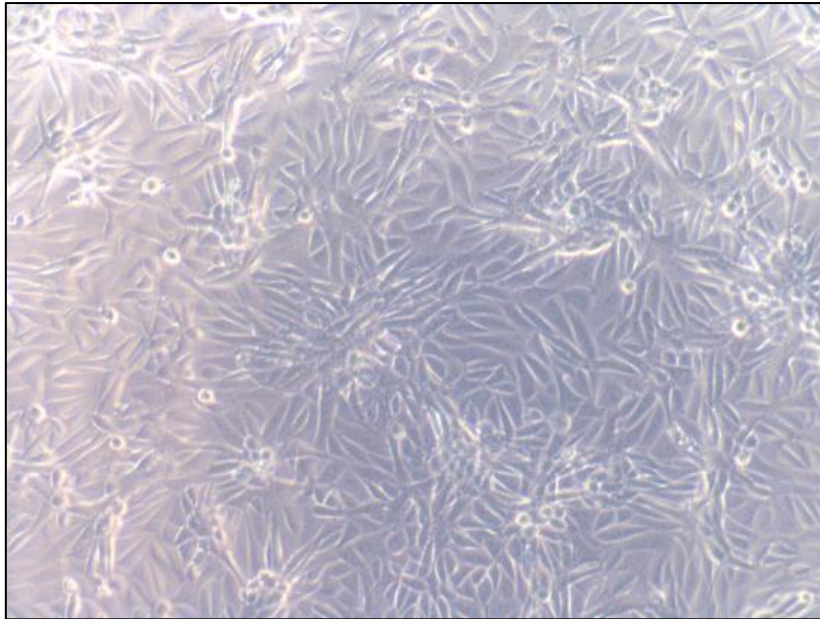
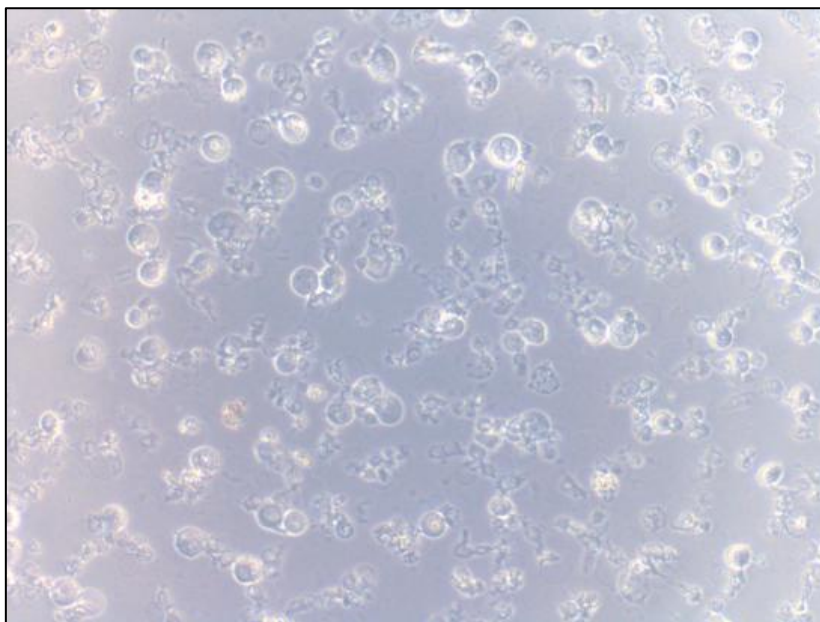


Figure S5. Spectral data of compound 2F: (A) IR, (B) MS, (C) <sup>1</sup>HNMR.



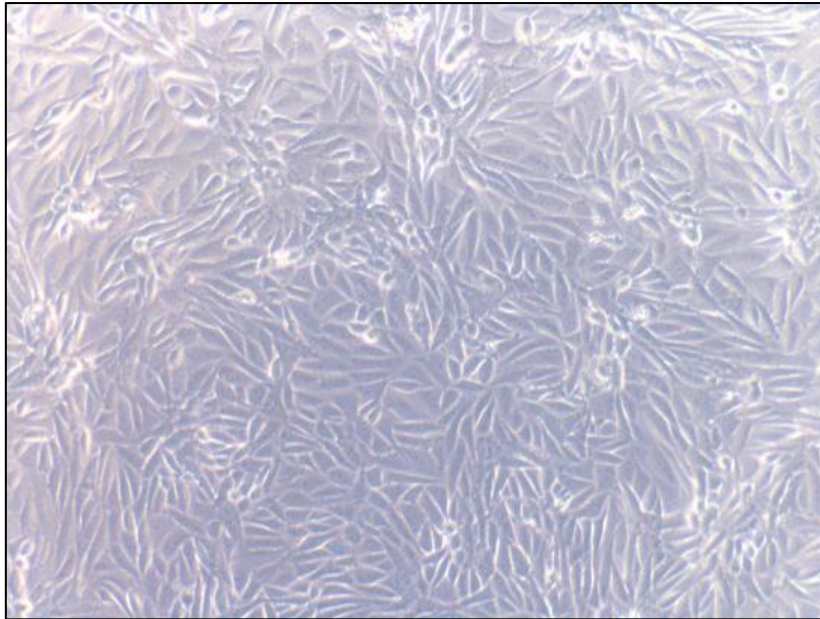


**Figure S7. SRB assay in MCF-7 cell lines: Control group**

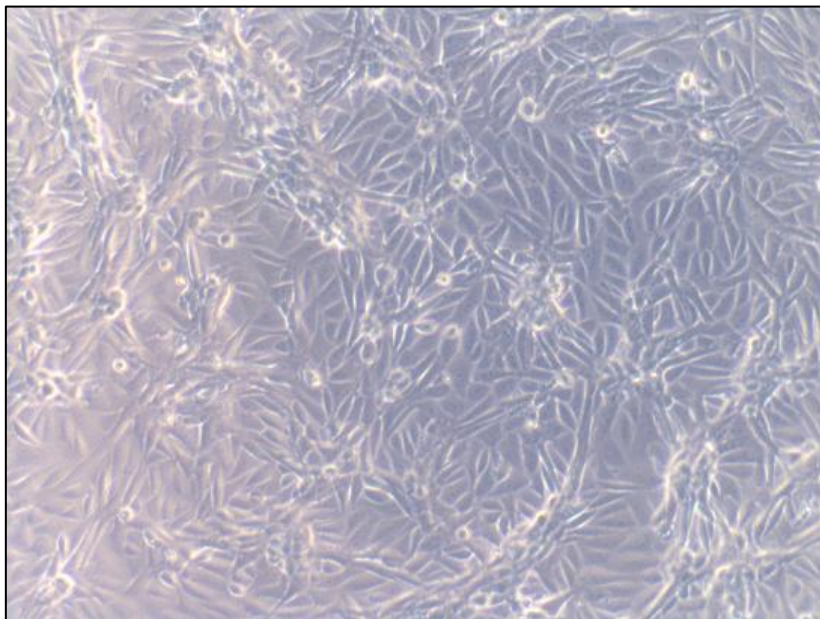


**Figure S8. SRB assay in MCF-7 cell lines: Group treated with 1L**

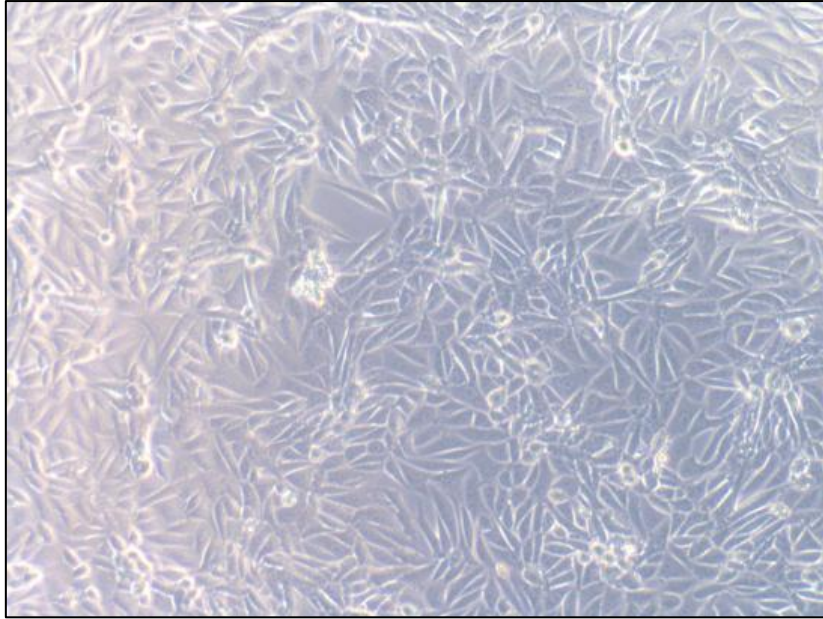




**Figure S9. SRB assay in MCF-7 cell lines: Group treated with 20**



**Figure S10. SRB assay in MCF-7 cell lines: Group treated with 2K**



**Figure S11. SRB assay in MCF-7 cell lines: Group treated with 1C**