Supporting information

Interaction of bisbenzimidazole-substituted carbazole derivatives with G-quadruplexes and living cells

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1. Absorption and Fluorescence Spectra of 7a, 7c

Figure S1. Absorption (a) and fluorescence spectra (b) of 7b and 7c (10 μM) in mixed solvent of ethanol and water, excitation at 350 nm.
2. Fluorometric titration

Figure S2. Fluorometric titration spectra of 7a (1 μM) with different DNA (λex = 408 nm).
Figure S3. Fluorometric titration spectra of 7b (1 μM) with different DNA (λex = 385 nm).
Figure S4. Fluorometric titration spectra of 7c (1 μM) with different DNA ($\lambda_{ex} = 375$ nm).
4. CD experiment

Figure S5. CD spectra of different G4s (4 μM) (EAD, Pu22, TBA, 22AG) in the absence and presence of 7b and 7c.
5. Confocal images

Figure S6. Confocal images of MCF-7 cells stained by 7a, 7b and 7c (10 μM).
6. $^1H$ NMR spectra and MS of compounds
ESI(P), AO, 20140916

Analysis Info
Analysis Name: D:\Data\ESI2014\2014-090916\AO_000001.d
Method: 4_23_Sensitivity_4.77
Sample Name: AO
Comment:
Acquisition Date: 9/16/2014 11:36:09 AM
Operator: solarIX

Acquisition Parameter
Acquisition Mode: Single MS
Polarity: Positive
Broadband Low Mass: 57.8 m/z
Broadband High Mass: 1000.0 m/z
Acquired Scans: 8
No. of Cell Fills: 1
Source Accumulation: 0.001 sec
Ion Accumulation Time: 0.350 sec
Calibration Date: Mon Sep 15 08:57:39
Data Acquisition Size: 394876
Data Processing Size: 2097152
Apodization: Sine-Bell Multiplication

Meas. m/z  # Ion Formula  Score  m/z  err [ppm]  Mean err [ppm]  mSigma  rdg  e  Conf  N-Rule
414.171671 1 C27H20N5  100.00  414.171322  -0.8  -1.2  10.4  20.5  even  ok

Chemical structure:

N  |  |  N
|  |  |  |  |  
|  |  |  |  |  
|  |  |  |  |  
N  |  |  |  |  N

H  |  |  |  H
|  |  |  |  |  
|  |  |  |  |  
H  |  |  |  |  H
