

SUPPORTING INFORMATION

A new benzothiazoloacetonitrile-derived fluorescent probe for selective hydrazine detection and its applications in bioimaging and cotton swab analysis

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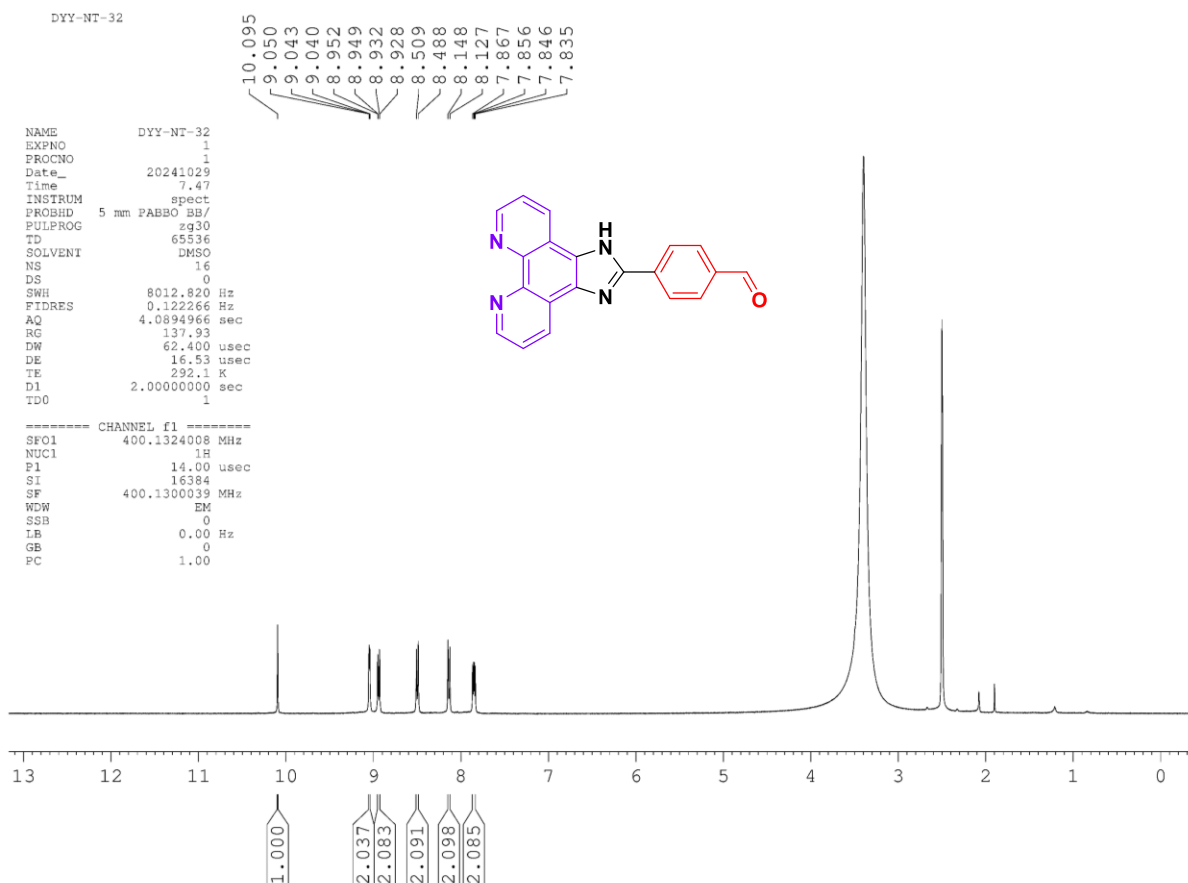


Figure S1. ¹H NMR of 4-(1H-imidazo[4,5-f][1,10]phenanthrolin-2-yl)benzaldehyde.

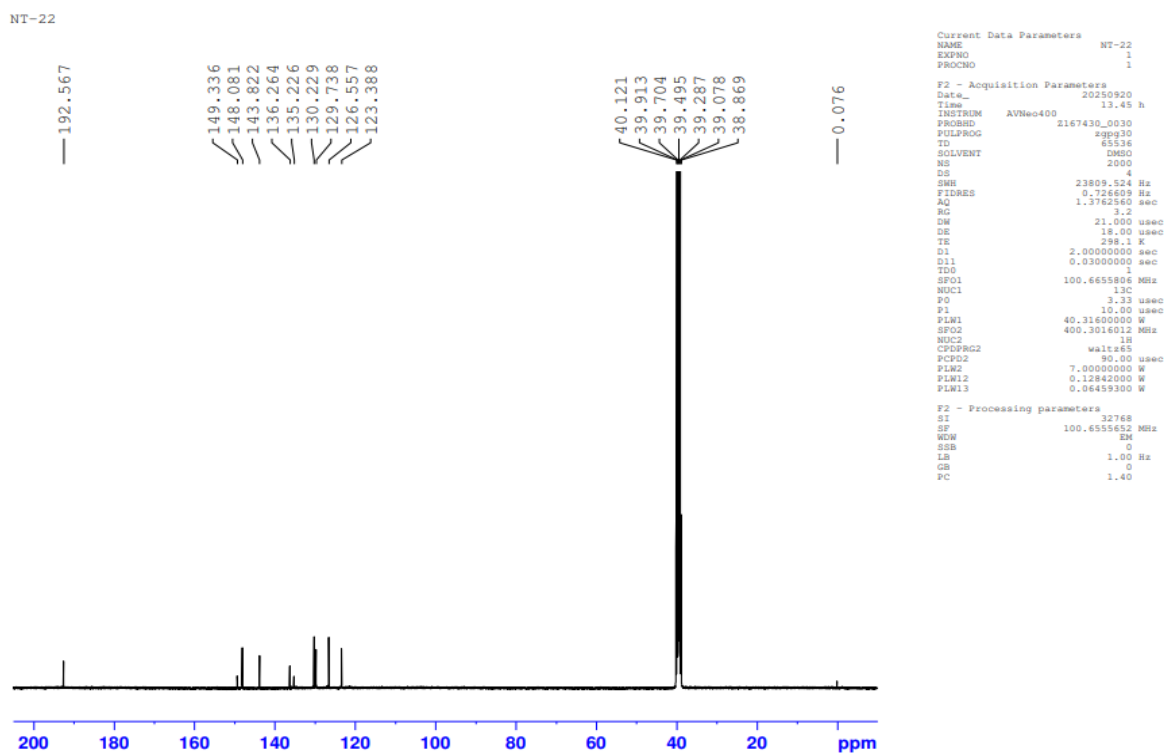


Figure S2. ¹³C NMR of 4-(1H-imidazo[4,5-f][1,10]phenanthrolin-2-yl)benzaldehyde

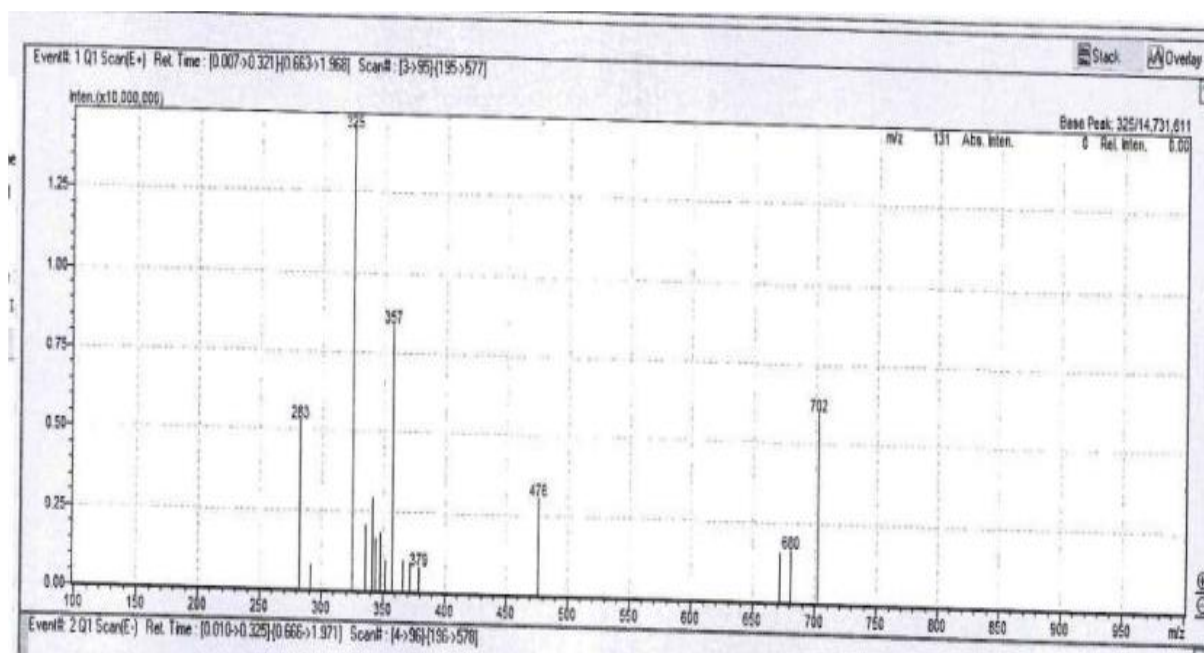


Figure S3. LCMS of 4-(1*H*-imidazo[4,5-*f*][1,10]phenanthrolin-2-yl)benzaldehyde.

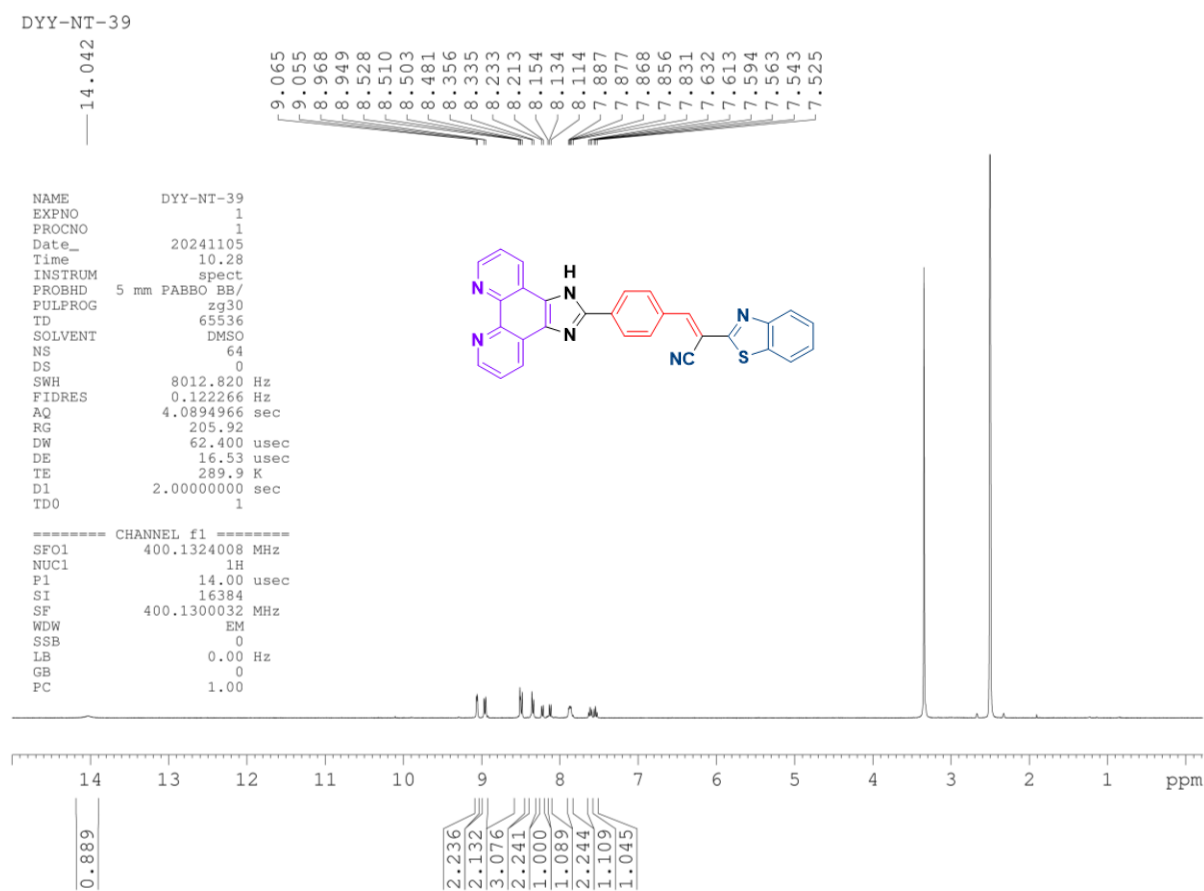


Figure S4. ¹H NMR of (*E*)-3-(4-(1*H*-imidazo[4,5-*f*][1,10]phenanthrolin-2-yl)phenyl)-2-(benzo[*d*]thiazol-2-yl)acrylonitrile (BTN).

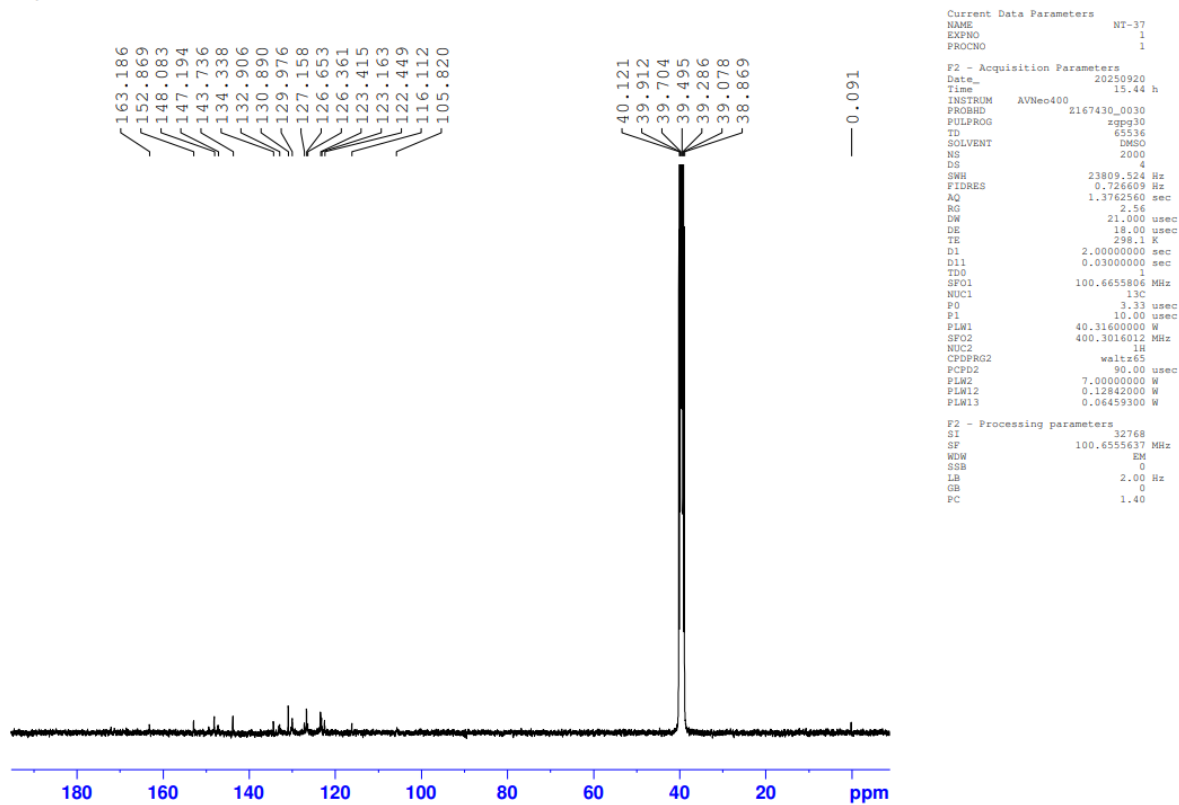


Figure S5. ^{13}C NMR of (*E*)-3-(4-(1*H*-imidazo[4,5-*f*][1,10]phenanthrolin-2-yl)phenyl)-2-(benzo[*d*]thiazol-2-yl)acrylonitrile (BTN).

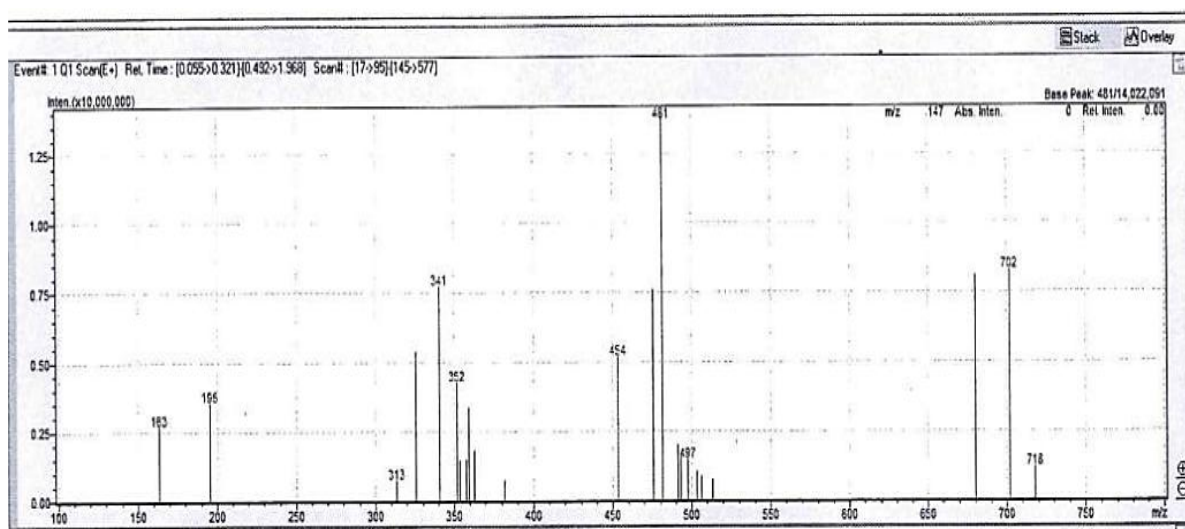


Figure S6. LCMS of (*E*)-3-(4-(1*H*-imidazo[4,5-*f*][1,10]phenanthrolin-2-yl)phenyl)-2-(benzo[*d*]thiazol-2-yl)acrylonitrile (BTN).

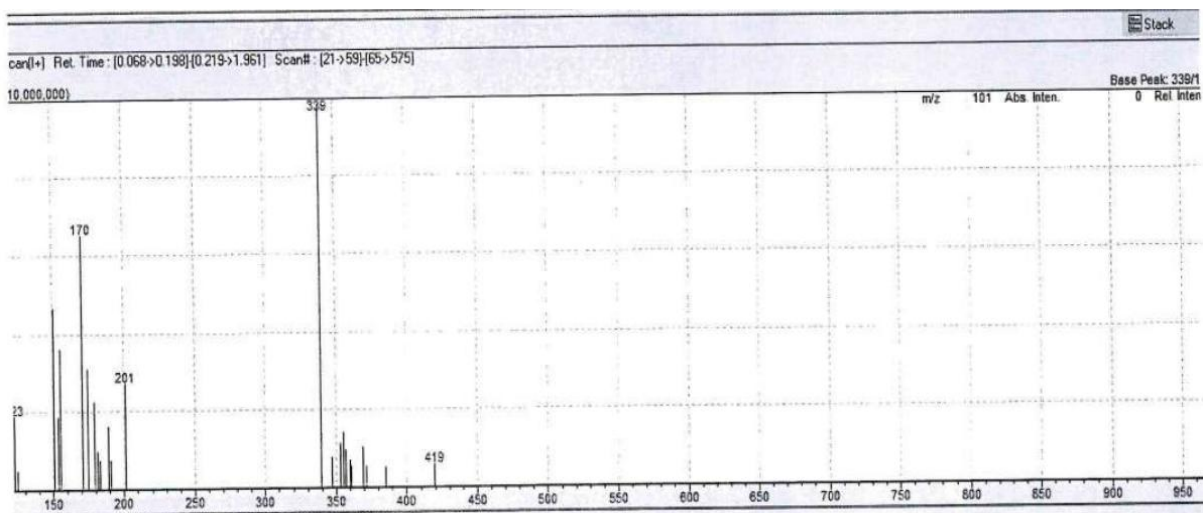


Figure S7. LCMS of (*E*)-3-(4-(1*H*-imidazo[4,5-*f*][1,10]phenanthrolin-2-yl)phenyl)-2-(benzo[*d*]thiazol-2-yl)acrylonitrile (BTN) probe + Hydrazine.

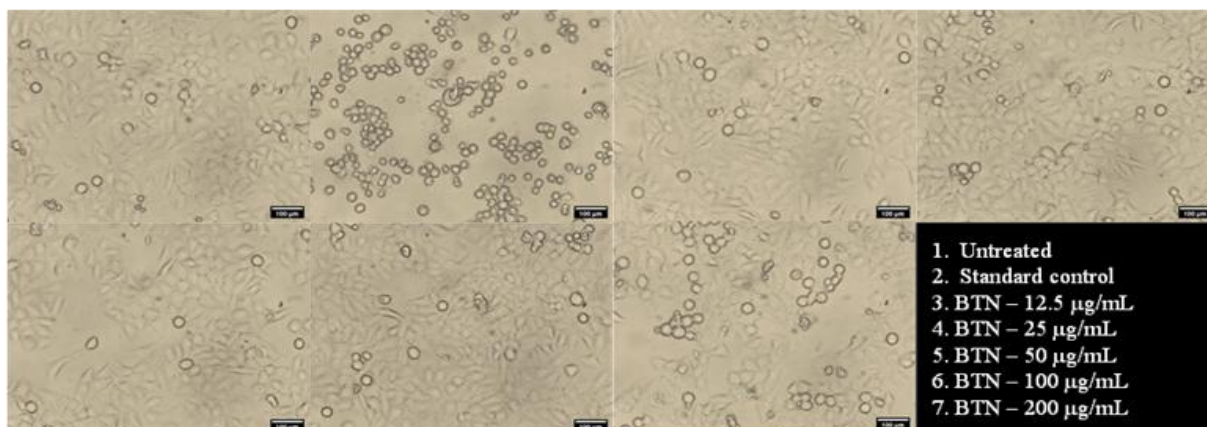


Figure S8. An overlaid montage photo representing the morphology of HeLa cells treated with different concentrations of BTN after an incubation period of 24 hours.

Table S1. %Cell viability values with varying concentrations of BTN after 24 hours of incubation.

MTT Assay Summary-BTN	
Condition	% Cell viability
Untreated	100.00
Doxo-1µg	50.59
BTN -12.5ug	98.20
BTN -25ug	89.10
BTN -50ug	87.84
BTN -100ug	86.27
BTN -200ug	71.45