Supporting Information

Experimental:

Melting points were determined in open capillaries and are uncorrected. IR spectra (ν<sub>max</sub> in cm<sup>-1</sup>) were recorded using samples as neat liquids and solid samples were recorded in KBr disks. <sup>1</sup>H NMR and <sup>13</sup>C NMR (300 and 400 MHz) spectra were recorded in CDCl<sub>3</sub> and DMSO-d<sub>6</sub> (chemical shift in δ) with TMS as internal standard. Mass spectra (MS) were recorded on JEOL JMS-600 instrument and HRMS were recorded on a QTOF MicroYA 263 instrument at the Indian Association for the Cultivation of Science, Kolkata. Silica gel [(60-120, 230-400 mesh), Rankem, India] was used for chromatographic separation. Silica gel G [Spectrochem, (India)] was used for TLC.

General procedure for the preparation of compound 4a-f:

A mixture of 5- amino-1,3-dimethyl uracil (3) (1 equiv.) and O-propargyl salicylaldehyde (2a-f) (1 equiv.) was stirred in toluene at r.t. for 10 minutes. After addition of 10 mole% BF<sub>3</sub>· Et<sub>2</sub>O (mole% calculated relative to the amine) the reaction mixture was refluxed for 4 h. After completion of the reaction as monitored by TLC the reaction mixture was cooled and diluted with saturated NaHCO<sub>3</sub> solution (50 mL). This was extracted with ethyl acetate (3x 25 mL). The combined organic extract was washed with brine and dried over (Na<sub>2</sub>SO<sub>4</sub>). The solvent was distilled off. The resulting crude product was purified by column chromatography over silica gel (60-120 mesh) using hexane-ethyl acetate mixture (1: 4) as eluent to give the compounds (4a-f).

Compound 4a:

Yield: 82 %, colourless solid; mp above 290 °C; IR(KBr): ν<sub>max</sub> = 1705, 1657, 1502, 1478 cm<sup>-1</sup>; <sup>1</sup>H-NMR (CDCl<sub>3</sub>, 400 MHz): δ<sub>H</sub> = 1.38 (s, 9H), 3.55 (s, 3H), 3.60 (s, 3H), 5.27 (s, 2H), 6.91 (d, J = 8.4 Hz, 1H), 7.30 (s, 1H), 7.39 (dd, J = 2.4, 8.4 Hz, 1H), 8.38 (d, J = 2.4 Hz, 1H) ppm. <sup>13</sup>C NMR (100 MHz): 29.0, 30.7, 31.4(3C), 34.5, 67.7, 116.6, 116.7, 117.8, 121.0, 121.7, 129.2, 131.5, 132.7, 136.9, 145.4, 145.9, 150.1, 153.9 ppm. HRMS: m/z calcd for C<sub>20</sub>H<sub>21</sub>N<sub>3</sub>O<sub>3</sub> [M+H]<sup>+</sup>: 352.1656; found: 352.1641.
**Compound 4b:**

Yield: 78 %, colourless solid; mp; above 290 °C IR(KBr): \( \nu_{\text{max}} = 1710, 1667, 1501, 1471\text{cm}^{-1} \); \(^1\)H-NMR (d\(_6\) DMSO, 300 MHz): \( \delta_{\text{H}} = 3.33\text{(s, 3H)}, 3.52\text{(s, 3H)}, 5.41\text{(s, 2H)}, \)
7.02 \( (d, J = 7.8 \text{ Hz, 1H}), 7.17\text{(s, 1H)}, 7.38\text{(s, 1H)}, 7.92\text{(s, 1H)}, 8.14\text{(d, J = 6.3 Hz, 1H)} \)
ppm. MS: \( m/z = 295 \) (M\(^+\)). Anal. Calcd. for C\(_{16}\)H\(_{13}\)N\(_3\)O\(_3\): C, 65.08; H, 4.44; N, 14.23; found: C, 64.96; H, 4.49; N, 14.30 %

**Compound 4c:**

Yield: 75 %, colourless solid; mp above 290 °C; IR(KBr): \( \nu_{\text{max}} = 1707, 1663, 1504, 1481\text{cm}^{-1} \); \(^1\)H-NMR (CDCl\(_3\), 400 MHz): \( \delta_{\text{H}} = 3.56\text{(s, 3H)}, 3.63\text{(s, 3H)}, 3.90\text{(s, 3H)}, 5.26\text{(s, 2H)}, 6.92\text{(d, J = 1.6 Hz, 2H)}, 7.33\text{(s, 1H)}, 7.89\text{(s, 1H)} \)
ppm. MS: \( m/z = 325 \) (M\(^+\)). Anal. Calcd. for C\(_{17}\)H\(_{15}\)N\(_3\)O\(_4\): C, 62.76; H, 4.65; N, 12.92; found: C, 62.95; H, 4.61; N, 12.85 %

**Compound 4d:**

Yield: 79 %, Grey colour solid; mp above 290 °C; IR(KBr): \( \nu_{\text{max}} = 1705, 1663, 1507, 1487\text{cm}^{-1} \); \(^1\)H-NMR (CDCl\(_3\), 400 MHz): \( \delta_{\text{H}} = 2.38\text{(s, 3H)}, 3.56\text{(s, 3H)}, 3.61\text{(s, 3H)}, 5.27\text{(s, 2H)}, 6.86\text{(d, J = 8.0 Hz, 1H)}, 7.14\text{(d, J = 8.0 Hz, 1H)}, 7.31\text{(s, 1H)}, 8.21\text{(s, 1H)} \)
ppm. MS: \( m/z = 309 \) (M\(^+\)). Anal. Calcd. for C\(_{17}\)H\(_{15}\)N\(_3\)O\(_3\): C, 66.01; H, 4.89; N, 13.58; found: C, 66.14; H, 4.86; N, 13.51 %

**Compound 4e:**

Yield: 71 %, colourless solid; mp. above 290 °C; IR(KBr): \( \nu_{\text{max}} = 1708, 1663, 1501, 1472\text{cm}^{-1} \); \(^1\)H-NMR (d\(_6\) - DMSO): \( \delta_{\text{H}} = 3.42\text{(s, 3H)}, 3.52\text{(s, 3H)}, 5.45\text{(s, 2H)}, 7.01\text{(d, J = 9.3 Hz, 1H)}, 7.53\text{(d, J = 9.3 Hz, 1H)}, 7.94\text{(s, 1H)}, 8.20\text{(s, 1H)} \)
ppm. MS: \( m/z = 373 \) (M\(^+\)). Anal. Calcd. for C\(_{16}\)H\(_{12}\)BrN\(_3\)O\(_3\): C, 51.36; H, 3.23; N, 11.23; found: C, 51.26; H, 3.29; N, 11.30 %

**Compound 4f:**

Yield: 77 %, colourless solid; mp above 290 °C; IR(KBr): \( \nu_{\text{max}} = 1705, 1661, 1494, 1465\text{cm}^{-1} \); \(^1\)H-NMR (d\(_6\) - DMSO, 300 MHz): \( \delta_{\text{H}} = 2.28\text{(s, 3H)}, 2.82\text{(s, 3H)}, 3.33\text{(s, 3H)}, 3.52\text{(s, 3H)}, 5.23\text{(s, 2H)}, 6.73\text{(s, 1H)}, 6.81\text{(s, 1H)}, 7.92\text{(s, 1H)} \)
ppm. MS: \( m/z = 323 \) (M\(^+\)).
Anal. Calcd. for C$_{18}$H$_{17}$N$_3$O$_3$: C, 66.86; H, 5.30; N, 13.00; found: C, 67.03; H, 5.26; N, 12.92 %

**Compound 4g**

Yield: 81 %, colourless solid; mp above 290°C; IR(KBr): $\nu_{\text{max}} = 1710, 1667, 1502, 1472$ cm$^{-1}$; $^1$H-NMR (d$_6$ - DMSO, 300 MHz): $\delta$H = 3.35 (s, 3H), 3.52 (s, 3H), 5.45 (s, 2H), 7.06 (d, $J = 8.7$ Hz, 1H), 7.40 (dd, $J = 2.4$ Hz, 6.0 Hz, 1H), 7.94 (s, 1H), 8.06 (s, 1H) ppm. MS: m/z = 329 (M$^+$). Anal. Calcd. for C$_{16}$H$_{12}$ClN$_3$O$_3$: C, 58.28; H, 3.67; N, 12.74; found: C, 58.14; H, 3.72; N, 12.84 %