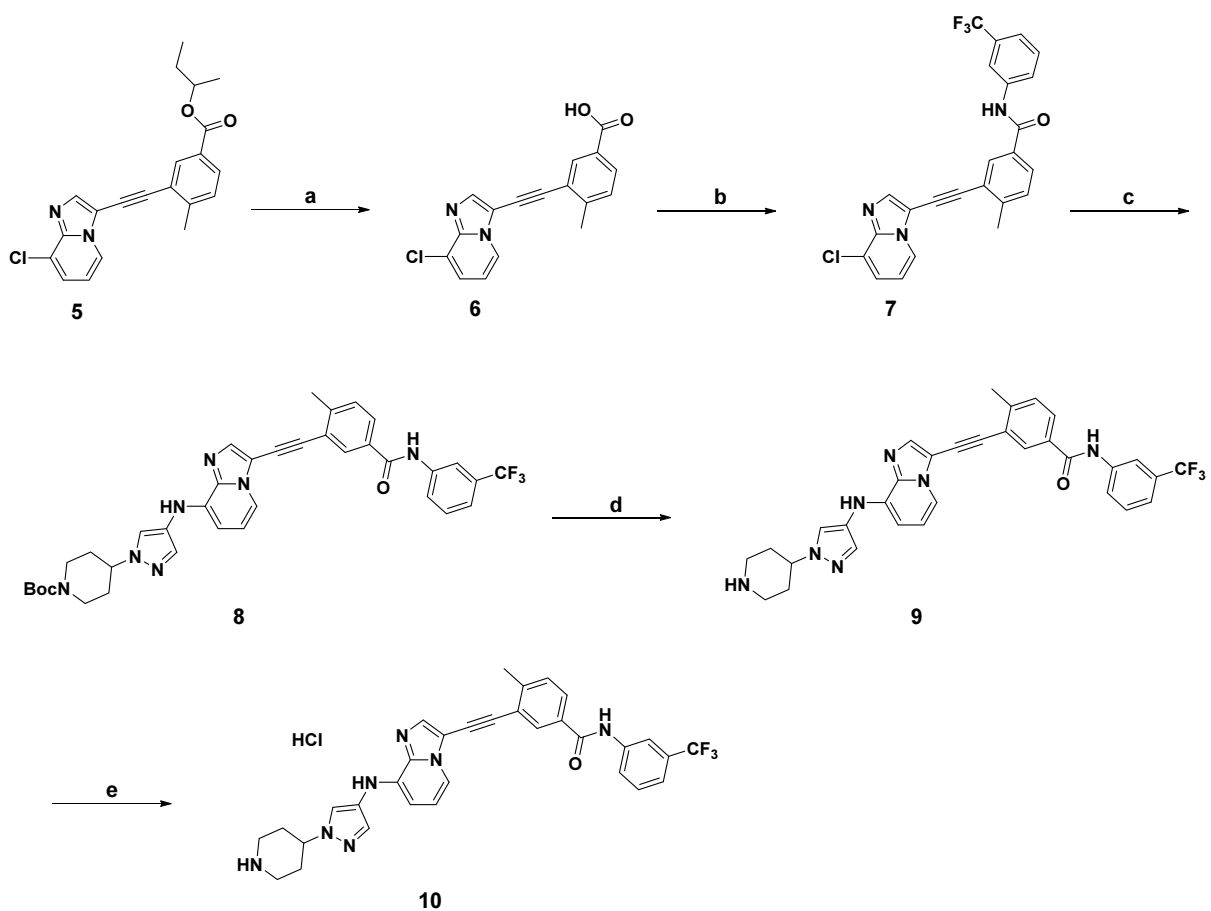


Supplementary Fig. 1. Synthesis of *sec*-butyl 3-((8-chloroimidazo[1,2-a]pyridin-3-yl)ethynyl)-4-methylbenzoate (5). Reagents and conditions: (a) NIS, DMF, -10 °C, 1.5 h, 96 %; (b) Ethynyltrimethylsilane, $Pd(PPh_3)_4$, CuI, DIPEA, CH_3CN , 80 °C, 1 h, 91 %; (c) K_2CO_3 , THF/MeOH (1:1), 25 °C, 0.5 h, 96 %; (d) *sec*-butyl 3-iodo-4-methylbenzoate, $Pd(PPh_3)_4$, CuI, DIPEA, DMF, 100 °C, 16 h, 80 %.



Supplementary Fig. 2. Synthesis of 4-methyl-3-((8-((1-(piperidin-4-yl)-1H-pyrazol-4-yl)amino)imidazo[1,2-a]pyridin-3-yl)ethynyl)-N-(3-(trifluoromethyl)phenyl)benzamide Hydrochloride salt (10). Reagents and conditions: (a) LiOH, THF/MeOH/Water (1.5:1:1), 60 °C, 3 h, 90 %; (b) 3-(trifluoromethyl)aniline, EDCI, DMAP, DMF, 60 °C, 8 h, 79 %; (c) *tert*-butyl 4-(4-amino-1H-pyrazol-1-yl)piperidine-1-carboxylate, Cs₂CO₃, XPhos Pd G2, *t*-BuOH, 130 °C, 20 h, 22 %; (d) TFA, DCM, 25 °C, 1 h, 92 %; (e) 4 N HCl in 1,4-dioxane, acetone, 25 °C, 1 h, 91 %.