Electronic Supplementary Material (ESI) for New Journal of Chemistry. This journal is © The Royal Society of Chemistry and the Centre National de la Recherche Scientifique 2022

DESIGN, SYNTHESIS AND BIOACTIVITY EVALUATION OF NOVEL QUINAZOLINE BASED KRAS^{G12C} INHIBITORS

Qingxu Liu^a, Yan Li^{abc}, Ying Zhi^{abc}, Bo Liu^{abc}, Jingyong Sun^{abc*}

a Institute of Materia Medica, Shandong First Medical University & Shandong Academy of Medical Sciences, Jinan 250117, China;

b Key Laboratory for Biotech-Drugs Ministry of Health, Jinan 250117, China;

c Key Laboratory for Rare & Uncommon Diseases of Shandong Province, Jinan 250117, China;

* Corresponding author. E-mail address: sunjingyong08@hotmail.com (Jingyong Sun)

Supporting Information

Contents

IR(KBr) of compounds 7a-8q	2
Mass spectra of compounds 7a-8q	11
¹ H NMR(600 MHz) of compounds 7a-8q	16
¹³ C NMR(150 MHz) of compounds 7a-8q	

IR(KBr) of compounds



For compound **7a**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound **7b**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound **7c**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 8a, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound **8b**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 8c, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound 8d, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 8e, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound 8f, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound **8g**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound 8h, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound **8i**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound **8***j*, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 8k, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound **8I**, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 8m, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound 8n, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 80, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:





For compound 8p, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:

For compound 8q, IR spectra were recorded on a Thermo Nicolet Nexus 670 FT-IR spectrometer:



Mass spectra of compounds

ESI mass spectrum of compound 1 recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 2 recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 3 recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 4 recorded on an AGILENT 1200 Capillary spectrometer:







390 400 410 Mass/Charge, Da 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570

ESI mass spectrum of compound 6 recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 7a recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 7b recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 7c recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8a recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8b recorded on an AGILENT 1200 Capillary spectrometer:







ESI mass spectrum of compound 8d recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8e recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8f recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8grecorded on an AGILENT 1200 Capillary spectrometer:







ESI mass spectrum of compound 8irecorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8j recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8k recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8l recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8m recorded on an AGILENT 1200 Capillary spectrometer:







ESI mass spectrum of compound 80 recorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8precorded on an AGILENT 1200 Capillary spectrometer:



ESI mass spectrum of compound 8q recorded on an AGILENT 1200 Capillary spectrometer:



¹H NMR (600MHz) of compounds





¹H NMR of compound **6**











 $^1\mathrm{H}$ NMR of compound $\mathbf{8f}$









¹H NMR of compound 81









¹H NMR of compound **8q**

¹³C NMR (150MHz) of compounds



^{210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10} f1 (ppm)



¹³C NMR of compound 7c



¹³C NMR of compound 8a









¹³C NMR of compound **8d**







¹³C NMR of compound **8h**





¹³C NMR of compound 8j





¹³C NMR of compound 81





¹³C NMR of compound **8n**





¹³C NMR of compound **8p**



