Supporting Information

2,5-Diaryl-1,3,4-oxadiazoles as selective COX-2 inhibitors and anti-inflammatory agents

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Contents
Scanned Spectra ...........................................................................................................................................2
Purity Determination..................................................................................................................................31
Gross pathology of paw edema………………………………………………………………………………………………........38
**Fig. S1**: $^1$H NMR of 2-(4-(methylthio)phenyl)-5-phenyl-1,3,4-oxadiazole 4a

**Fig. S2**: $^{13}$C NMR of 2-(4-(methylthio)phenyl)-5-phenyl-1,3,4-oxadiazole 4a
**Fig. S3:** $^1$H NMR of 2-(4-chlorophenyl)-5-(4-(methylthio)phenyl)-1,3,4-oxadiazole 4b

**Fig. S4:** $^{13}$C NMR of 2-(4-chlorophenyl)-5-(4-(methylthio)phenyl)-1,3,4-oxadiazole 4b
Fig. S5: $^1$H NMR of 2-(2-fluorophenyl)-5-(4-(methylthio)phenyl)-1,3,4-oxadiazole 4c

Fig. S6: $^{13}$CNMR of 2-(2-fluorophenyl)-5-(4-(methylthio)phenyl)-1,3,4-oxadiazole 4c
Fig. S7: $^1$H NMR of 2-(4-(methylthio)phenyl)-5-(p-tolyl)-1,3,4-oxadiazole 4d

Fig. S8: $^{13}$C NMR of 2-(4-(methylthio)phenyl)-5-(p-tolyl)-1,3,4-oxadiazole 4d
**Fig. S9**: $^1$H NMR of 2-(4-(methylthio)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazole 4e

**Fig. S10**: $^{13}$C NMR of 2-(4-(methylthio)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazole 4e
**Fig. S11:** $^1$H NMR of 2-(4-(tert-butyl)phenyl)-5-(4-(methylthio)phenyl)-1,3,4-oxadiazole 4f

**Fig. S12:** $^{13}$C NMR of 2-(4-(tert-butyl)phenyl)-5-(4-(methylthio)phenyl)-1,3,4-oxadiazole 4f
Fig. S13: $^1$H NMR of 2-(4-(tert-butyl)phenyl)-5-(4-(trifluoromethyl)phenyl)-1,3,4-oxadiazole 4g

Fig. S14: $^{13}$C NMR of 2-(4-(tert-butyl)phenyl)-5-(4-(trifluoromethyl)phenyl)-1,3,4-oxadiazole 4g
Fig. S15: $^1$H NMR of 2-(4-chlorophenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazole 4h

Fig. S16: $^{13}$C NMR of 2-(4-chlorophenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazole 4h
**Fig. S17**: $^1$H NMR of 1-(2-(4-(methylthio)phenyl)-5-phenyl-1,3,4-oxadiazol-3(2H)-yl)ethanone 5a

**Fig. S18**: $^{13}$C NMR of 1-(2-(4-(methylthio)phenyl)-5-phenyl-1,3,4-oxadiazol-3(2H)-yl)ethanone 5a
Fig. S19: $^1$H NMR of 1-(5-(4-chlorophenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5b

Fig. S20: $^{13}$C NMR of 1-(5-(4-chlorophenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5b
**Fig. S21**: $^1$H NMR of 1-(5-(2-fluorophenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5c

**Fig. S22**: $^{13}$C NMR of 1-(5-(2-fluorophenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5c
Fig. S23: $^1$H NMR of 1-(2-(4-(methylthio)phenyl)-5-(p-tolyl)-1,3,4-oxadiazol-3(2H)yl)ethanone 5d

Fig. S24: $^{13}$C NMR of 1-(2-(4-(methylthio)phenyl)-5-(p-tolyl)-1,3,4-oxadiazol-3(2H)yl)ethanone 5d
Fig. S25: $^1$H NMR of 1-(2-(4-(methylthio)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5e

Fig. S26: $^{13}$C NMR of 1-(2-(4-(methylthio)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5e
Fig. S27: $^1$H NMR of 1-(5-(4-(tert-butyl)phenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5f

Fig. S28: $^{13}$C NMR of 1-(5-(4-(tert-butyl)phenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5f
Fig. S29: $^1$H NMR of 1-(5-(2-chlorophenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5g

Fig. S30: $^{13}$C NMR of 1-(5-(2-chlorophenyl)-2-(4-(methylthio)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5g
Fig. S31: $^1$H NMR of 1-(5-(4-(tert-butyl)phenyl)-2-(4-(trifluoromethyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5h

Fig. S32: $^{13}$C NMR of 1-(5-(4-(tert-butyl)phenyl)-2-(4-(trifluoromethyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 5h
**Fig. S33:** $^1$H NMR of 2-(4-(methylsulfonyl)phenyl)-5-phenyl-1,3,4-oxadiazole 6a

**Fig. S34:** $^{13}$C NMR of 2-(4-(methylsulfonyl)phenyl)-5-phenyl-1,3,4-oxadiazole 6a
Fig. S35: $^1$H NMR of 2-(4-chlorophenyl)-5-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazole 6b

Fig. S36: $^{13}$C NMR of 2-(4-chlorophenyl)-5-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazole 6b
Fig. S37: $^1$H NMR of 2-(2-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazole 6c

Fig. S38: $^{13}$C NMR of 2-(2-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazole 6c
Fig. S39: $^1$H NMR of 2-(4-(methylsulfonyl)phenyl)-5-(p-tolyl)-1,3,4-oxadiazole 6d

Fig. S40: $^{13}$C NMR of 2-(4-(methylsulfonyl)phenyl)-5-(p-tolyl)-1,3,4-oxadiazole 6d
Fig. S41: $^1$H NMR of 2-(4-(methylsulfonyl)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazole 6e

Fig. S42: $^{13}$C NMR of 2-(4-(methylsulfonyl)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazole 6e
Fig. S43: $^1$H NMR of 2-((tert-butyl)phenyl)-5-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazole 6f

Fig. S44: $^{13}$C NMR of 2-((tert-butyl)phenyl)-5-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazole 6f
Fig. S45: $^1$H NMR of 1-(2-(4-(methylsulfonyl)phenyl)-5-phenyl-1,3,4-oxadiazol-3(2H)-yl)ethanone 7a

Fig. S46: $^{13}$C NMR of 1-(2-(4-(methylsulfonyl)phenyl)-5-phenyl-1,3,4-oxadiazol-3(2H)-yl)ethanone 7a
Fig. S47: $^1$H NMR of 1-(5-(4-chlorophenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7b

Fig. S48: $^{13}$C NMR of 1-(5-(4-chlorophenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7b
Fig. S49: $^1$H NMR of 1-(5-(2-fluorophenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7c

Fig. S50: $^{13}$C NMR of 1-(5-(2-fluorophenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7c
Fig. S51: $^1$H NMR of 1-(2-(4-(methylsulfonyl)phenyl)-5-(p-tolyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7d

Fig. S52: $^{13}$C NMR of 1-(2-(4-(methylsulfonyl)phenyl)-5-(p-tolyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7d
Fig. S53: $^1$H NMR of 1-(2-(4-(methylsulfonyl)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7e

Fig. S54: $^{13}$C NMR of 1-(2-(4-(methylsulfonyl)phenyl)-5-(4-nitrophenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7e
**Fig. S55**: $^1$H NMR of 1-(5-(4-(tert-butyl)phenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7f

**Fig. S56**: $^{13}$C NMR of 1-(5-(4-(tert-butyl)phenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone 7f
Fig. S57: $^1$H NMR of 1-(5-(2-chlorophenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone $7g$

Fig S58: $^{13}$C NMR of 1-(5-(2-chlorophenyl)-2-(4-(methylsulfonyl)phenyl)-1,3,4-oxadiazol-3(2H)-yl)ethanone $7g$
Purity Determination

Purity of compounds (4a-h, 5a-h, 6a-f and 7a-g) was determined on UPLC. The analysis was performed on Waters ACQUITY UPLC H-Class system, equipped with a binary pump, auto sampler, photodiode array detector (PDA) and Empower™ 3 software (Waters, Milford, MA, USA), on Column BEH Shield RP-18 column (2.1 × 100 mm, 1.7 μm, Waters, Milford, MA, USA). Mobile Phase consisted of Isocratic Water:ACN (30:70), flow rate was set to 0.3 mL/min, injection volume was 2 µL, column temperature was maintained at 30°C and detection was carried out using a PDA detector at λ_{max} 254 nm.

**UPLC chromatograms**

![Fig. S59: UPLC of compound 4a](image)

![Fig. S60: UPLC of compound 4b](image)

![Fig. S61: UPLC of compound 4c](image)
Fig. S62: UPLC of compound 4d

Fig. S63: UPLC of compound 4e

Fig. S64: UPLC of compound 4f

Fig. S65: UPLC of compound 4g

Fig. S66: UPLC of compound 4h
Fig. S67: UPLC of compound 5a

Fig. S68: UPLC of compound 5b

Fig. S69: UPLC of compound 5c

Fig. S70: UPLC of compound 5d
Fig. S71: UPLC of compound 5e

Fig. S72: UPLC of compound 5f

Fig. S73: UPLC of compound 5g

Fig. S74: UPLC of compound 5h
Fig. S75: UPLC of compound 6a

Fig. S76: UPLC of compound 6b

Fig. S77: UPLC of compound 6c

Fig. S78: UPLC of compound 6d

Fig. S79: UPLC of compound 6e
Fig. S85: UPLC of compound 7e

Fig. S86: UPLC of compound 7f

Fig. S87: UPLC of compound 7g
**Fig. S88**: Photographic image of paw (circled in red): Normal control group at 3h A) Top view; B) Lateral view