a b s t r a c t
A new series of triarylpyrazoline derivatives 8a–p containing the most important COX-2 pharmacophore (SO2CH3 or/and SO2NH2) were synthesized by reaction of propen-1-one derivatives 6a–h with different phenyl hydrazine hydrochloride derivatives 7a–b in aqueous ethanol. All prepared compounds were evaluated for their in vitro COX-1/COX-2 inhibitory activity and the in vivo anti-inflammatory activity. All compounds were more selective for COX-2 isozyme than COX-1 isozyme and showed good in vivo anti-inflammatory activity. Compounds 8g, 8j and 8o showed the highest anti-inflammatory activity and were less ulcerogenic (Ulcer Index = 6.85, 7.7, 5.92, respectively) than indomethacin (Ulcer Index = 12.3) and comparable to celecoxib (Ulcer Index = 4.85).

–