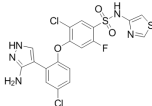
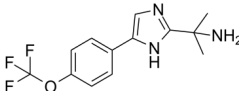


ABSTRACT

ANALGESIC AND ANTIPRURITIC PHARMACEUTICAL COMPOSITION AND APPLICATION THEREOF

This application relates to medicinal chemistry, and more particularly to an analgesic and antipruritic pharmaceutical composition and an application thereof. It has been found that the analgesic effect produced by inhibiting the activity of Na_v1.7 shown

as  or Na_v1.8 shown as  alone weakens with the duration of peripheral nerve injury, and the neuropathic pain mice, which have poor response to the Na_v1.7 small-molecule inhibitors, show better response to the Na_v1.8 small-molecule inhibitors. Based on these results, analgesic effects produced by the combined administration of different Na_v1.7 inhibitors and Na_v1.8 inhibitors are investigated, and the results demonstrate that the combined administration of appropriate doses of Na_v1.7 inhibitor PF-05089771 and Na_v1.8 inhibitor PF-04885614 can significantly enhance the analgesic effect and improve the individual response rate to 100%. Thus, a pharmaceutical composition containing PF-05089771 and PF-04885614 is provided herein for the treatment of diseases involving Na_v1.7 and Na_v1.8 activity, including but not limited to, chronic pain and pruritus.

(Fig. 5)