Ibudilast is an inhibitor of phosphodiesterases 3 and 5 (PDE3/5) that also inhibits the leukotriene D4 (LTD4) receptor in airway smooth muscle cells. Ibudilast exhibits vasodilatory, anti-inflammatory, anti-asthma, anti-platelet, analgesic, and antinociceptive activities. In clinical settings, ibudilast increases cerebral blood flow in several brain regions after ischemic stroke. Ibudilast also non-competitively inhibits the functions of pro-inflammatory macrophage migration inhibitory factor (MIF), preventing glial cell activation. In other cellular models, ibudilast decreases activation of NF-κB, inhibiting HIV-1 Tat-induced production of TNF-α.

References


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