

Preclinical Candidate Development of Innovative Drugs Targeting NLRP3 Inflammasome Inhibition for Inflammatory Bowel Disease

JMackem Co., Ltd



IMMUNOLOGY	Candidate
Product Type	Small molecules
Indication	Ulcerative Colitis (Inflammatory Bowel Disease)
Target	NLRP3 Inflammasome
MoA(Mechanism of Action)	Selective inhibition of NLRP3 inflammasome activation → No off-target activity on AIM2 or NLRC4 → Minimal immunosuppression with strong inflammatory control
Competitiveness	<ul style="list-style-type: none"> • Demonstrated superior efficacy versus leading comparators in a DSS-induced colitis model under therapeutic regimen conditions • Strong mucosal healing and anti-inflammatory effects, including disease index recovery, colon restoration, and biomarker reduction • Exhibits excellent oral bioavailability and favorable drug-like properties • Confirmed brain penetration, enabling future expansion to CNS indications (e.g., Alzheimer's disease, neuroinflammation)
Development Stage	Candidate
Route of Administration	Oral

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