

# Development of structurally modified microbial small molecule of multi-MOA for Parkinson's disease

MolGenBio Co., Ltd  


NEUROLOGY	Candidate
Product Type	Small molecule
Indication	Parkinson's disease
Target	FKBP (FK506-binding protein)
MoA(Mechanism of Action)	<ul style="list-style-type: none"> <li>• Structural modification of FK506, which is clinically used as an immunosuppressant after organ transplant, via synthetic biology technology maintains FKBP binding affinity while eliminating immunosuppressive activity.</li> <li>• Inhibits <math>\alpha</math>-synuclein aggregation through FKBP12 binding.</li> <li>• Inhibits NF-<math>\kappa</math>B signaling through FKBP51 binding, producing anti-inflammatory effects.</li> <li>• Exerts neurotrophic effects through FKBP51 binding.</li> </ul>
Competitiveness	<ul style="list-style-type: none"> <li>• A first-in-class disease-modifying drug for treatment of Parkinson's disease.</li> <li>• Orally active, microbe-derived FKBP modulator that integrates neuroprotective, anti-inflammatory, and anti-aggregation mechanisms.</li> <li>• Excellent safety profile.</li> </ul>
Development Stage	Candidate
Route of Administration	oral (PO)

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