

# Discovery of lead compounds for multiple sclerosis via inflammation modulation induced by PKM2 tetramerization

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IMMUNOLOGY	Lead
Product Type	Small molecules
Indication	Multiple sclerosis, RRMS
Target	PKM2 (Pyruvate Kinase M2)
MoA(Mechanism of Action)	Activation of PKM2 tetramerization → Suppression of Th17 differentiation and reduction of T cell activation → inhibition of autoimmunity
Competitiveness	<ul style="list-style-type: none"> <li>- First in class for MS</li> <li>- Fingolimod, a S1P1 agonist, shows cardiac side effects and high risk of infection due to low level of peripheral lymphocytes.</li> <li>- PKM2 activators promote formation of stabilized PKM2 tetramers, which inhibit nuclear translocation of PKM2 dimer, thereby reducing the transcription of inflammatory genes. Therefore, PKM2 activators aim to modulate immune responses associated with MS.</li> <li>- anti-inflammation and anti-fibrosis dual action</li> </ul>
Development Stage	Lead
Route of Administration	Oral administration

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