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Product Datasheet

Ritlecitinib, CAS [[1792180-81-4]] FBM-10-4377

Article Name	Ritlecitinib, CAS [[1792180-81-4]]
Biozol Catalog Number	FBM-10-4377
Supplier Catalog Number	10-4377
Alternative Catalog Number	FBM-10-4377-5MG,FBM-10-4377-25MG
Manufacturer	Focus Biomolecules
Category	Biochemikalien
Product Description	JAK3 inhibitor...
Molecular Weight	285.35
Purity	>98% by HPLC NMR (Conforms)
Form	White solid
CAS Number	[1792180-81-4]
Formula	C15H19N5O

Application Notes

Ritlecitinib is potent ($IC_{50} = 33 \text{ nM}$) covalent JAK3 inhibitor with exquisite selectivity over other members in its kinase class (JAK1, JAK2, TYK2).^{1,2} It also displays excellent kinome selectivity against 305 kinases tested. Ritlecitinib inhibits Th1 and Th17 cell differentiation and function and ameliorates symptoms in rat arthritis and mouse autoimmune encephalomyelitis models.² It selectively targets gamma-cytokine pathways while preserving JAK1-dependent anti-inflammatory signaling. Ritlecitinib also displays activity against some TEC family kinases (BTK, BMX, ITK, RLPK, TEC) leading to inhibition of the cytolytic function of CD8⁺ T cells and NK cells.³ Low dose Ritlecitinib significantly improved T-cell responses and decreased tumor load in mouse cancer models.⁴ It significantly prolonged allograft survival in a mouse cardiac transplantation model.