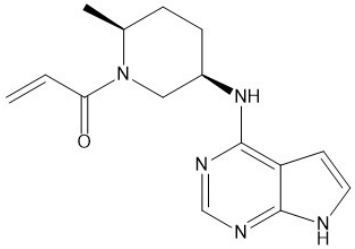
Tribioscience

Ritlecitinib, JAK3 inhibitor

Catalog	Unit
TBI4377-5MG	5 mg
TBI4377-25MG	25 mg

Product Details

Formal Name: 1-[(2S,5R)-2-Methyl-5-(7H-pyrrolo[2,3-d]pyrimidin-4-ylamino)piperidin-1-yl]prop-2-en-1-one
Alternate Names: PF-06651600
Molecular Formula: $C_{15}H_{19}N_5O$
Formula Weight: 285.4
CAS Number: 1792180-81-4
Purity: >98%
Formulation: Powder
Solubility: Soluble in DMSO (at least 100 mg/ml)
Storage: -20°C
Stability: ≥ 2 years.



Applications

JAK3 inhibitor

Functions

Potent (IC_{50} = 33 nM) covalent JAK3 inhibitor with exquisite selectivity over other members in its kinase class (JAK1, JAK2, TYK2). 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. It selectively targets γc cytokine pathways while preserving JAK1-dependent anti-inflammatory signaling. Also displays activity against some TEC family kinases (BTK, BMX, ITK, RLK,TEC) leading to inhibition of the cytolytic function of CD8+ T cells and NK cells. Low dose Significantly improved T-cell responses and decreased tumor load in louse cancer models. It significantly prolonged allograft survival in a mouse cardiac transplantation model.

Application Procedures

First dissolved in Soluble in DMSO (at least 100 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 3 months.

For research use only.