

Belumosudil, ROCK2 inhibitor

Catalog	Unit
TBI4165-5MG	5 mg
TBI4165-25MG	25 mg

Product Details

Formal Name: 2-[3-[4-(1H-Indazol-5-yl)amino]quinazolin-2-yl]phenoxy]-N-propan-2-ylacetamide

Alternate Names: KD025; SLx-2119

Molecular Formula: C₂₆H₂₄N₆O₂

Formula Weight: 452.50

CAS Number: 911417-87-3

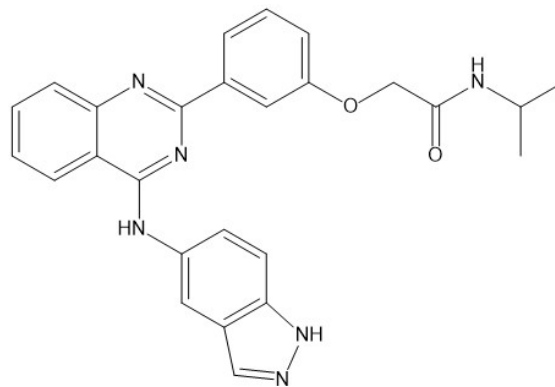
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 25 mg/ml)

Storage: -20°C

Stability: ≥ 1 year.



Applications

ROCK2 inhibitor

Functions

Belumosudil is a selective inhibitor of Rho kinase 2 (ROCK2) – IC₅₀'s: ROCK2 = 105 nM, ROCK1 = 24 μM in enzyme assays. It downregulated the ability of T cells to secrete IL-21 and IL-17, but not IFN-γ, in response to T cell stimulation in vitro via a STAT3-dependent mechanism. Belumosudil ameliorated graft-versus-host disease in multiple models and was recently approved by the FDA for the treatment of GVHD (July 2021). It has also been shown to suppress adipogenesis. Suppression of adipocyte differentiation is mediated via casein kinase 2 inhibition (IC₅₀ = 50 nM) and not ROCK2 inhibition.

Application Procedures

First dissolved in DMSO (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 1 month.

For research use only.