Data Sheet (Cat.No.TP3319)

TargetMol

G6PI 325-339 (human) hydrochloride

Chemical Properties

CAS No. :

Formula: C82H118ClN19O21S3.xHCl

Molecular Weight:

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	G6PI 325-339 (human) hydrochloride is an effective inducer of arthritis in B10.Q mice. It triggers cross-reactivity of Th1 and Th17 cells with mouse G6PI protein. This compound induces an arthritis model through T and B cell-dependent pathways, without involving any antibody effector mechanisms.
Targets(IC50)	Others
In vivo	The compound G6PI is involved in the induction of an arthritis model. G6PI can generate antibodies in vivo, triggering immune cells to produce cytokines (such as TNF-α and IL-1β), which can lead to arthritis. Model induction in mice involves using 50 μg of complete Freund's adjuvant administered as a single subcutaneous injection at the base of the tail in 6-10 week-old DBA/1 mice. Note: (1) DBA/1 mice are raised in our facility under specific pathogen-free conditions. (2) Mice are euthanized on day 12 post-immunization to prepare draining lymph node single-cell suspensions. Successful modeling indicators include morphological signs such as pronounced synovitis and adjacent skeletal muscle inflammation predominated by neutrophils, a hallmark of acute inflammation, with mild activation of synovial fibroblasts. The synovial tissue swells due to inflammatory infiltration; however, bone damage is only locally visible. On a molecular level, there are increased levels of IL-17, TNFα, RANKL, and IFNγ.