Product Data Sheet

Chemical Properties

Product Name: Zotarolimus(ABT-578)
Cas No.: 221877-54-9
M.Wt.: 966.21
Formula: C52H79N5O12

Chemical Name:

Canonical SMILES:

Solubility: Soluble in DMSO
Storage: Desiccated at -20°C
General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets:

Pathways:

Description:
Zotarolimus(ABT-578) is an anti-proliferative drug used exclusively in coronary drug eluting stent [1].

Zotarolimus(ABT-578) is an analogue of rapamycin and an anti-proliferative drug. Zotarolimus exhibited high affinity to the immunophilin FKB12 and inhibited T cells proliferation [1]. Zotarolimus inhibited FKB12 binding with IC50 value of 2.8 nM. In human coronary artery cells,
zotarolimus inhibited smooth muscle cell (SMC) and endothelial cell (EC) proliferation with IC50 values of 2.9 and 2.6 nM, respectively [2]. In human blood-derived peripheral blood mononuclear cells (PBMC) and rat splenocytes, zotarolimus inhibited Con A-induced human and rat T cell proliferation with IC50 values of 7.0 and 1337 nM respectively in a concentration-dependent way. In lymphocytes derived from humans or rats, zotarolimus inhibited the human and rat mixed lymphocyte reaction (MLR) with IC50 values of 1.2 and 1465 nM respectively in a concentration-dependent way. Also, zotarolimus inhibited human coronary artery smooth muscle cell proliferation induced by growth factor with IC50 value of 0.8 nM [3].

In crossbred juvenile swine, zotarolimus-eluting PC-coated stents induced a lower percent lumen stenosis, less neointimal area, less neointimal thickness and greater lumen area [2]. In a rat adjuvant DTH model mediated by T cell, zotarolimus inhibited the rat adjuvant DTH response with ED50 value of 1.72 mg/kg/day [3].

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.