

Product Data Sheet

Product Name: PQA-18
Cat. No.: GC92001

Chemical Properties

Cas. No. 1604678-82-1

Chemical Name 4,8-bis[(3-methyl-2-buten-1-yl)oxy]-2-quinolinecarboxylic acid, 3-methyl-2-buten-1-yl ester

SMILES C/C(C)=C/COC1=C(C=CC=C2OC/C=C(C)\C)C2=NC(C(OC/C=C(C)/C)=O)=C1

Formula $C_{25}H_{31}NO_4$

M.Wt 409.5

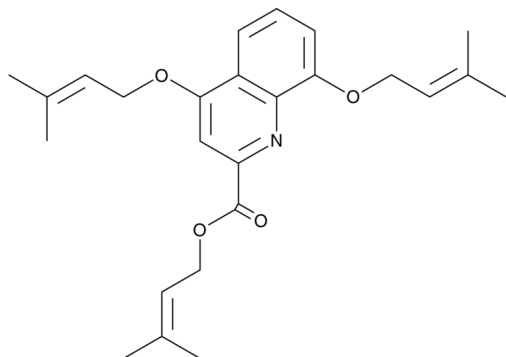
Solubility

Storage -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.

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

Structure



Background

PQA-18 is an inhibitor of p21-activated kinase 2 (PAK2; $\text{IC}_{50} = 10 \text{ nM}$), an immunosuppressant, and a derivative of Ppc-1.¹ It inhibits the production of IL-2 induced by concanavalin A in Jurkat T cells ($\text{IC}_{50} = 400 \text{ nM}$). Topical application of PQA-18 (0.1%) decreases disease severity, serum IgE levels, and skin thickness in the NC/Nga mouse model of atopic dermatitis. It also reduces cutaneous nerve fiber density in NC/Nga mice when applied topically at 0.05%.² PQA-18 (4 mg/kg) increases graft survival rate in a rat model of small intestine transplant.³

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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References:

- [1]. Ogura, M., Kikuchi, H., Suzuki, T., et al. Prenylated quinolinecarboxylic acid derivative suppresses immune response through inhibition of PAK2. *Biochem Pharmacol.* 105:55-65 (2016).
- [2]. Ogura, M., Endo, K., Suzuki, T., et al. Prenylated quinolinecarboxylic acid compound-18 prevents sensory nerve fiber outgrowth through inhibition of the interleukin-31 pathway. *PLoS One* 16(2):e0246630 (2021).
- [3]. Kodama, T., Maeda, A., Lo, P.-C., et al. The effect of a novel immunosuppressive drug, a PAK-2 inhibitor, on macrophage differentiation/polarization in a rat small intestinal transplantation model. *Transpl. Immunol.* 57:101246 (2019).

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