

Product Data Sheet

Product Name: L48H37
Cat. No.: GC64417

Chemical Properties

Cas. No. 343307-76-6

Formula C₂₇H₃₃NO₇ M.Wt 483.55

Solubility DMSO : 50 mg/mL (103.40 mM; Storage 4°C, protect from light
Need ultrasonic)

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.

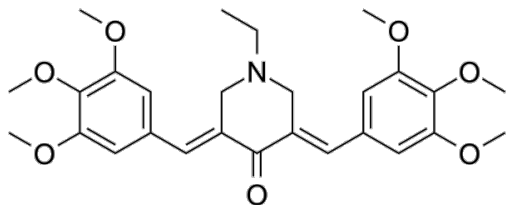
Caution: Product has not been fully validated for medical applications. For research use only.

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

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Structure



Background

L48H37 is an analog of Curcumin with improved chemical stability. L48H37 is a potent and specific myeloid differentiation protein 2 (MD2) inhibitor and inhibits the interaction and signaling transduction of LPS-TLR4/MD2. L48H37 is used for the research of sepsis or lung injury treatment[1].

L48H37 inhibits LPS-induced inflammation, particularly TNF- α and IL-6 production and gene expression in mouse macrophages[1].

L48H37 (0-20 μ M; 24 hours) decreases the viability of A549 and H460 cells with IC₅₀ values of 5.3 μ M and 2.3 μ M, respectively, which is more effective compared to curcumin in lung cancer cells. It shows a low cytotoxicity on normal human lung epithelial cells (BEAS-2B) with IC₅₀ of 21 μ M[2]. L48H37 (1, 2, or 4 μ M; 16 hours) dose-dependently inhibited the expression of p-Cdc2 and Cdc2, and increases the expression of p53. It also shows increased levels of cleaved poly (ADP-ribosyl) polymerase (PARP) and reduced levels of anti-apoptotic protein Bcl-2 in H460 and A549 cells[2].

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L48H37 (4 μ M; 16 hours) rapidly induces intracellular ROS levels dose-dependently as detected by increased DCF levels in H460 and A549 cells[2].

L48H37 (intraperitoneal injection; 5 mg or 10 mg/kg; once daily; 11-day) inhibits H460 xenograft tumor growth and exhibits anti-tumor activity in mice[1].

[1]. Yi Wang, et al. Curcumin Analog L48H37 Prevents Lipopolysaccharide-Induced TLR4 Signaling Pathway Activation and Sepsis via Targeting MD2. J Pharmacol Exp Ther. 2015 Jun;353(3):539-50

[2]. Chen Feng, et al. Curcumin analog L48H37 induces apoptosis through ROS-mediated endoplasmic reticulum stress and STAT3 pathways in human lung cancer cells. Mol Carcinog. 2017 Jul;56(7):1765-1777.

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