

Product Data Sheet

Product Name: IL4RPep-1 acetate

Cat. No.: GC79394

Chemical Properties

Cas. No.

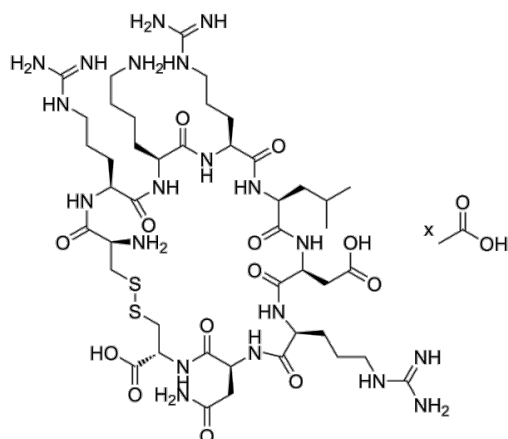
Formula $C_{44}H_{80}N_{20}O_{13}S_2 \cdot xC_2H_4O_2$ M.Wt 1161.36

Solubility DMSO: 25 mg/mL (Need ultrasonic) Storage Sealed storage, away from moisture

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

IL4RPep-1 acetate is an interleukin-4 receptor (IL-4R) binding agent. IL4RPep-1 acetate preferentially binds to cells with high levels of IL-4R expression compared to those with low levels of expression. IL4RPep-1 acetate-labeled liposomes containing Doxorubicin are internalized by cells

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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more efficiently. IL4RPep-1 acetate-labeled liposomes accumulate more effectively within H226 tumors [1].

In Vivo, IL4RPep-1 acetate-labeled doxorubicin-loaded liposomes (doxorubicin equivalent dose of 1 mg/kg; intravenous injection; twice weekly for a total of 7 times) significantly inhibit the growth of H226 lung cancer xenografts compared with the untreated control group, free doxorubicin and unlabeled liposomes, with no significant effect on mouse body weight[1].

In Vitro, IL4RPep-1 (biotin-labeled IL4RPep-1; 1-80 μ M; 1 h) acetate binds to H226 squamous cell lung cancer cells with high IL-4R expression, with a dissociation constant K_d of 6.5 μ M, and its binding affinity is significantly higher than that to H460 large cell lung cancer cells with low IL-4R expression (K_d = 51.9 μ M)[1]. IL4RPep-1 (100 μ g IL4RPep-1; 0-24 h) acetate remains stable in mouse serum at 37 °C for at least 4 h, and most of the peptide stays intact even after 24 h of incubation[1]. IL4RPep-1 (10 μ M; 1 h) acetate preferentially binds to TNF- α -activated HUVEC with upregulated IL-4R expression, compared with untreated human umbilical vein endothelial cells (HUVEC)[1].

References:

[1]. Chi L, et al. Enhanced delivery of liposomes to lung tumor through targeting interleukin-4 receptor on both tumor cells and tumor endothelial cells. J Control Release. 2015;209:327-336.

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