Product Data Sheet

Almurtide

Cat. No.:HY-122529CAS No.:61136-12-7Molecular Formula: $C_{18}H_{30}N_4O_{11}$ Molecular Weight:478.45

Target: Bacterial

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

| Description | Almurtide (nor-MDP), a muramyl dipeptide derivative with anti-inflammatory and anti-tumor activity. Almurtide also shows protective effects against intraperitoneal Pseudomonas aeruginosa infection or intravenously Candida albicans infection in mice. Almurtide also inhibits the carcinogenic Friend leukemia virus ^{[1][2][3]} . |
|-------------|---|
| In Vivo | Almurtide (80 mg/kg; once daily for 4 consecutive days; via intraperitoneal, intravenous, or subcutaneous) stimulates macrophages nonspecifically and has anti-infective activity against Listeria monocytogenes. At the same time, it lacks oral activity and is synergistic with Gentamicin (HY-A0276A) $^{[2]}$. Almurtide (100 µg/mouse; s.c.; once for 2-3 months) prevents erythroleukemia in SJL/J mice caused by low-dose Friend leukemia virus and delays the occurrence of spontaneous breast tumors in RIII/Imr mice $^{[3]}$. MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

REFERENCES

[1]. Díaz-Eufracio BI, et al. Exploring the chemical space of peptides for drug discovery: a focus on linear and cyclic penta-peptides. Mol Divers. 2018 May;22(2):259-267.

[2]. Fraser-Smith E B, et al. Protective effect of muramyl dipeptide analogs against infections of Pseudomonas aeruginosa or Candida albicans in mice. Infection and immunity, 1981, 34(3): 676-683.

[3]. Acevedo H F, et al. Prevention of oncogenic viral infections in mice with CGP 11637, a synthetic muramyl dipeptide analog[J]. Antimicrobial agents and chemotherapy, 1985, 28(5): 589-596.

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

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