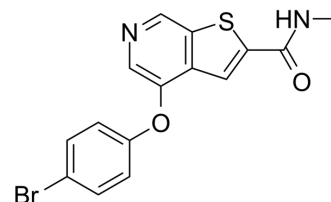


ICAM-1-IN-1

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-U00003 | | |
| CAS No.: | 251994-14-6 | | |
| Molecular Formula: | C ₁₅ H ₁₁ BrN ₂ O ₂ S | | |
| Molecular Weight: | 363.23 | | |
| Target: | Integrin | | |
| Pathway: | Cytoskeleton | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 135 mg/mL (371.67 mM)
 * "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent | | Mass | | |
|---------------------------|---------------|--|-----------|------------|------------|
| | Concentration | | 1 mg | 5 mg | 10 mg |
| | 1 mM | | 2.7531 mL | 13.7654 mL | 27.5308 mL |
| | 5 mM | | 0.5506 mL | 2.7531 mL | 5.5062 mL |
| | 10 mM | | 0.2753 mL | 1.3765 mL | 2.7531 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.25 mg/mL (6.19 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.25 mg/mL (6.19 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.25 mg/mL (6.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ICAM-1-IN-1 is a potent and selective inhibitor of E-selectin and ICAM-1 with IC₅₀ values of 7 and 5 nM, respectively.

IC₅₀ & Target

IC₅₀: 7 nM (E-selectin), 5 nM (ICAM-1)^[1]

In Vivo

ICAM-1-IN-1 shows significant efficacy in a rat rheumatoid arthritis model and in a mouse asthma model. ICAM-1-IN-1 reduces the width of inflamed ankles after the ninth day following treatment, but shows no efficacy in the acute phase.

Treatment with ICAM-1-IN-1 (25 mg/kg) for 21 days significantly reduces the ankle inflammation of the arthritis rats. Significant reduction of eosinophils and serum-soluble ICAM-1 (sICAM-1) is observed^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration ^[1]

Rats: In a rat rheumatoid arthritis model, 26 all rats are treated with peptidoglycan polysaccharide to elicit the disease to a desired degree. Six rats per group are then treated with ICAM-1-IN-1 or vehicle control twice daily. The ankles of these rats are measured on day 0, 1, 3, 7, 9, 11, 16, 18, and 21 after administration. Histologic analyses of the ankles are performed on the last day of the experiment^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Zhu GD, et al. Selective inhibition of ICAM-1 and E-selectin expression in human endothelial cells. 2. Arylmodifications of 4-(aryloxy)thieno[2,3-c]pyridines with fine-tuning at C-2 carbamides. J Med Chem. 2001 Oct 11;44(21):3469-87.

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

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