**Fudosteine**

**Cat. No.:** HY-B0393  
**CAS No.:** 13189-98-5  
**Molecular Formula:** C₆H₁₃NO₃S  
**Molecular Weight:** 179.24  
**Target:** Others  
**Pathway:** Others  
**Storage:** Powder  
-20°C 3 years  
4°C 2 years  
In solvent  
-80°C 6 months  
-20°C 1 month

**SOLVENT & SOLUBILITY**

<table>
<thead>
<tr>
<th>Solvent</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂O : ≥ 100 mg/mL (557.91 mM)</td>
<td>5.5791 mL</td>
<td>27.8956 mL</td>
<td>55.7911 mL</td>
</tr>
</tbody>
</table>

*“≥” means soluble, but saturation unknown.*

**Preparing Stock Solutions**

- 1 mM: 5.5791 mL  
- 5 mM: 1.1158 mL  
- 10 mM: 0.5579 mL

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

**BIOLOGICAL ACTIVITY**

**Description**

Fudosteine is a novel mucoactive agent and a MUC5AC mucin hypersecretion inhibitor. Target: Others  
Fudosteine is a cysteine derivative that is used as an expectorant in chronic bronchial inflammatory disorders. The administration of fudosteine during the challenge with ovalbumin prevented the development of airway hyperresponsiveness and accumulation of lymphocytes in the airways. Eotaxin, IL-4, and TGF-β levels and the relative intensity of matrix metalloproteinase-2 and matrix metalloproteinase-9 (MMP-2 and MMP-9) in BAL fluid were reduced by the fudosteine treatment; however, the number of eosinophils in BAL fluid and serum IgE levels did not change. The expression of TGF-β, the development of goblet cell hyperplasia, subepithelial collagenization, and basement membrane thickening were also reduced by the fudosteine treatment [1]. Fudosteine inhibits MUC5AC mucin hypersecretion by reducing MUC5AC gene expression and the effects of fudosteine are associated with the inhibition of extracellular signal-related kinase and p38 mitogen-activated protein kinase in vivo and extracellular signal-related kinase in vitro [2].
REFERENCES
