**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**

In Vitro  
H₂O : ≥ 100 mg/mL (557.91 mM)  
*“≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>In Vitro</td>
<td>1 mM</td>
<td>5.5791 mL</td>
<td>27.8956 mL</td>
<td>55.7911 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>1.1158 mL</td>
<td>5.5791 mL</td>
<td>11.1582 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.5579 mL</td>
<td>2.7896 mL</td>
<td>5.5791 mL</td>
</tr>
</tbody>
</table>

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


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