WST-8

Cat. No.: HY-D0831  
CAS No.: 193149-74-5  
Molecular Formula: C₂₀H₁₄N₆NaO₁₁S₂  
Molecular Weight: 601.48  
Target: Others  
Pathway: Others  
Storage: 4°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

**In Vitro**  
H₂O : 50 mg/mL (83.13 mM; Need ultrasonic)  
DMSO : 10 mg/mL (16.63 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.6626 mL</td>
<td>8.3128 mL</td>
<td>16.6257 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3325 mL</td>
<td>1.6626 mL</td>
<td>3.3251 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1663 mL</td>
<td>0.8313 mL</td>
<td>1.6626 mL</td>
</tr>
</tbody>
</table>

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 1 mg/mL (1.66 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 1 mg/mL (1.66 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 1 mg/mL (1.66 mM); Clear solution

BIOLGICAL ACTIVITY

**Description**

WST-8 is a water-soluble tetrazolium dye, WST-8 enhances sensitivity of the WST-8-based assay over the conventional MTS-based assay.

**In Vitro**

The generally used MTS-based assay is compared with a bioassay employing a water-soluble tetrazolium dye, WST-8, using NFS-60 cells at a concentration of 7×10⁵ cells/mL against 800 IU/mL of PEGylated G-CSF at 24, 48, 72, and 72 h time points to determine the efficacy of PEGylated G-CSF. Further, the optimized WST-8 dye-based assay is used to test the potency of various commercially available PEGylated G-CSF preparations. The results demonstrate enhanced
sensitivity of the WST-8-based assay over the conventional MTS-based assay for determining the potency of PEGylated G-CSF using the NFS-60 cell line\cite{1}.

REFERENCES