



# SZABO SCANDIC

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### SZABO-SCANDIC HandelsgmbH

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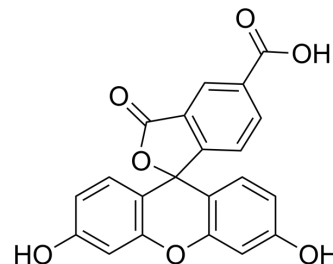
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## 5-FAM

|                    |  |
|--------------------|--|
| Cat. No.:          | HY-66022   |
| CAS No.:           | 76823-03-5   |
| Molecular Formula: | C <sub>21</sub> H <sub>12</sub> O <sub>7</sub>   |
| Molecular Weight:  | 376.32   |
| Target:            | Fluorescent Dye  |
| Pathway:           | Others   |
| Storage:           | 4°C, protect from light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light) |



### SOLVENT & SOLUBILITY

| In Vitro                  | DMSO : ≥ 31 mg/mL (82.38 mM)   |           |            |               |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|---------------------------|--|-----------|------------|---------------|--|--|------|------|-------|---------------------------|------|-----------|------------|------------|------|-----------|-----------|-----------|-------|-----------|-----------|-----------|
|                           | H <sub>2</sub> O : < 0.1 mg/mL (insoluble)   |           |            |               |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           | * "≥" means soluble, but saturation unknown.   |           |            |               |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           |  |           |            |               |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           | <table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>2.6573 mL</td> <td>13.2866 mL</td> <td>26.5731 mL</td> </tr> <tr> <td>5 mM</td> <td>0.5315 mL</td> <td>2.6573 mL</td> <td>5.3146 mL</td> </tr> <tr> <td>10 mM</td> <td>0.2657 mL</td> <td>1.3287 mL</td> <td>2.6573 mL</td> </tr> </tbody> </table> | Solvent   | Mass       | Concentration |  |  | 1 mg | 5 mg | 10 mg | Preparing Stock Solutions | 1 mM | 2.6573 mL | 13.2866 mL | 26.5731 mL | 5 mM | 0.5315 mL | 2.6573 mL | 5.3146 mL | 10 mM | 0.2657 mL | 1.3287 mL | 2.6573 mL |
| Solvent                   | Mass   |           |            | Concentration |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           |  | 1 mg      | 5 mg       | 10 mg         |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
| Preparing Stock Solutions | 1 mM   | 2.6573 mL | 13.2866 mL | 26.5731 mL    |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           | 5 mM   | 0.5315 mL | 2.6573 mL  | 5.3146 mL     |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           | 10 mM  | 0.2657 mL | 1.3287 mL  | 2.6573 mL     |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
|                           | Please refer to the solubility information to select the appropriate solvent.  |           |            |               |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |
| In Vivo                   | <ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline<br/>Solubility: ≥ 2.5 mg/mL (6.64 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)<br/>Solubility: ≥ 2.5 mg/mL (6.64 mM); Clear solution</li> </ol>  |           |            |               |  |  |      |      |       |                           |      |           |            |            |      |           |           |           |       |           |           |           |

### BIOLOGICAL ACTIVITY

|             |  |
|-------------|--|
| Description | 5-FAM (5-Carboxyfluorescein) is a green fluorescent reagent used for in situ labeling peptides, proteins and nucleotides. 5-FAM is a single isomer with Ex/Em of 490 nm/520 nm <sup>[1]</sup> .  |
| In Vitro    | 5-FAM contains a carboxylic acid that can be used to react with primary amines via carbodiimide activation of the carboxylic acid. Fluorescein is the most common fluorescent derivatization reagent for labeling biomolecules. In addition to its relatively high absorptivity, excellent fluorescence quantum yield, and good water solubility, fluorescein has an excitation maximum that closely matches the 488 nm spectral line of the argon-ion laser <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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## CUSTOMER VALIDATION

- Bone. 2023 Jan 13;116677.

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## REFERENCES

[1]. Jungmi Lee, et al. Peptide substrate-based inkjet printing high-throughput MMP-9 anticancer assay using fluorescence resonance energy transfer (FRET). Sens Actuators B Chem. 2018 Mar;256:1093-1099.

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

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