**Product name**
7-Aminoactinomycin D (7-AAD), Fluorescent DNA dye

**Description**
Fluorescent DNA dye for apoptosis and flow cytometry studies

**Biological description**
Fluorescent DNA dye for apoptosis and flow cytometry studies. Guanine-specific synthetic fluorescent analogue of actinomycin D. Intercalates DNA by binding to GC regions. Discriminates between live cells as well as early and late apoptosis in flow cytometry. Excitation/emission = 488/647 nm.

**Purity**
> 97%

**CAS Number**
7240-37-1

**Chemical structure**
![Chemical structure image]

**Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical name</td>
<td>2,7-Diamino-4,6-dimethyl-3-oxo-1-N,N-bis[7,11,14-trimethyl-2,5,9,12,15-pentaoxo-3,10-di(propan-2-yl)-8-oxa-1,4,11,14-tetrazabicyclo[14.3.0]nonadecan-6-yl]phenoxazine-1,9-dicarboxamide</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>1270.43</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>C_{62}H_{87}N_{13}O_{16}</td>
</tr>
<tr>
<td>PubChem identifier</td>
<td>65180</td>
</tr>
<tr>
<td>Storage instructions</td>
<td>Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.</td>
</tr>
<tr>
<td>Solubility overview</td>
<td>Soluble in DMSO to 10 mM</td>
</tr>
</tbody>
</table>
Handling

Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be usable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.

SMILES

CC1C(==O)NC(C(==O)N2CCCC2C(==O)N(CC(==O)N(C(C(==O)O1)C(C(C)C)C(C)C)C)C)C(C)C)N
C3=CC(C(4=C3N=C5C(=C(C(=O)C(=C5O4)C)N)C(=O)NC6C(O=O)C(N(C(==O)CN(C(=O)C7CCCN7C(==O)C(NC6=O)C(C)C)C(C)C)C(C)C)C)N

Source

Synthetic

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE, NOT FOR USE IN HUMANS"

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