Product Name: Flurbiprofen  
CAS Number: 5104-49-4  
IUPAC Name: 2-Fluoro-α-methyl-[1,1'-biphenyl]-4-acetic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{15}\text{H}_{13}\text{FO}_2 \)
Batch Molecular Weight: 244.26
Physical Appearance: White solid
Solubility: 1 eq. NaOH to 25 mM
ethanol to 50 mM
DMSO to 100 mM
Storage: Store at RT

2. ANALYTICAL DATA

TLC: \( R_f = 0.48 \) (Dichloromethane:Methanol [10:1])
Melting Point: At 117°C
HPLC: Shows >99.5% purity
\(^1\)H NMR: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
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</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>73.76</td>
<td>73.47</td>
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<tr>
<td>Hydrogen</td>
<td>5.36</td>
<td>5.58</td>
</tr>
<tr>
<td>Nitrogen</td>
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</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
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Description: Potent inhibitor of cyclooxygenase (IC₅₀ values are 0.1 and 0.4 μM for inhibition of human COX-1 and COX-2 respectively). Analgesic, anti-inflammatory and antipyretic in vivo. Inhibits tumor cell growth in vitro and in vivo. Regulates prostate stem cell antigen through activation of Akt kinase. Also inhibits fibroblast proliferation in vitro.

Physical and Chemical Properties:  
Batch Molecular Formula: C₁₉H₁₅FO₂  
Batch Molecular Weight: 244.26  
Physical Appearance: White solid  
Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:  
1eq. NaOH to 25 mM ethanol to 50 mM DMSO to 100 mM

Stability and Solubility Advice:  
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath). Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:  
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.  
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:  