**Product Name**: Etretinate

**Catalog Number**: T6831

**CAS Number**: 54350-48-0

**Molecular Formula**: C23H30O3

**Molecular Weight**: 354.48

**Description**: Etretinate is an oral aromatic retinoid acid which is effective in psoriasis and other dermatological syndromes. It activates retinoid receptors, causing an induction of cell differentiation, inhibition of cell proliferation, and inhibition of tissue infiltration by inflammatory cells.

**Storage**: 2 years at -80°C in solvent; 3 years at -20°C powder;

**Solubility**

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Solubility</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>65 mg/mL (183.4 mM)</td>
</tr>
<tr>
<td>Ethanol</td>
<td>65 mg/mL (183.4 mM)</td>
</tr>
<tr>
<td>Water</td>
<td>&lt;1 mg/mL</td>
</tr>
</tbody>
</table>

( < 1 mg/mL refers to the product slightly soluble or insoluble)

**Receptor (IC50)**

RAR

**In vivo Activity**

There is a significant decrease in mean dermal thickness ($P < 0.05$) and changes in collagen bundles in the etretinate-treated mice group for a 28-day period compared to control groups. TUNEL assay shows that the density of TUNEL-positive cells in the dermis of etretinate-treated mice for a 14-day period is significantly increased ($P < 0.05$). The ratio of procollagen α1(I) chain to β actin mRNA from etretinate-treated mice for a 1-day period decreased significantly compared to that of the control mice, but the ratio from etretinate-treated mice for a 14-day period increased significantly ($P < 0.05$). Etretinate reduces dermal thickness, and suppresses the appearance of skin lesions by inducing apoptosis and perhaps regulation of cytokine expression in MRL/lpr mice.

**Cell Assay**

The HSC-5 cells are plated in 96-well plates at a density of $1.5 \times 10^3$ per 100 μL and used for experiments. Preliminary experiments are performed to determine the effective dose and cytotoxicity of etretinate. The cells are incubated for 72 h with etretinate at concentrations of 5, 10, 25 and 50 μmol/L [dissolved in saline containing 0.0001% dimethyl sulfoxide (DMSO)]. The cells are then incubated for a further 2 h with or without 200 μmol/L ALA (Sigma). Each plate is then irradiated using a metal halide lamp at doses of 10, 20, 40 and 80 J/cm² (Only for Reference).

**Animal Experiment**

Animal Model: BLM-induced sclerotic skin mice

**Reference**


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