

<b>Product Name:</b>	Terrein
<b>Product Number:</b>	T083
<b>CAS Number:</b>	582-46-7
<b>Molecular Formula:</b>	$C_8H_{10}O_3$
<b>Molecular Weight:</b>	154.2
<b>Appearance:</b>	Light tan solid
<b>Storage Conditions:</b>	-20°C
<b>Description:</b>	<p>Terrein is a polar, substituted dihydrocyclopentenone first reported by Raistrick and colleagues in the 1930s and subsequently found in a number of <i>Aspergillus</i> and <i>Penicillium</i> species.</p> <p>Terrein is soluble in ethanol, methanol, DMF and DMSO.</p>
<b>Mechanism of Action:</b>	<p>Recent research shows that terrein reduces melanin synthesis by reducing tyrosinase production via ERK activation, followed by MITF down-regulation. Terrein also reduces human keratinocyte proliferation by inhibiting ERK and by decreasing the expression of cyclin B1 and Cdc2 complex.</p>
<b>References:</b>	<p>Studies in the biochemistry of micro-organisms: The metabolic products of <i>Aspergillus terreus</i> Thom. A new mould metabolic product, terrein. Raistrick H. &amp; Smith G. <i>Biochem. J.</i> 1935, 29, 606.</p> <p>Terrein: a new melanogenesis inhibitor and its mechanism. Park S.H. et al. <i>Cell. Mol. Life Sci.</i> 2004, 61, 2878.</p> <p>Terrein inhibits keratinocyte proliferation via ERK inactivation and G2/M cell cycle arrest. Kim D.S. et al. <i>Exp. Dermatol.</i> 2008, 17, 312.</p>