

Product Name:	Echinocandin B
Product Number:	E031
CAS Number:	54651-05-7
Molecular Formula:	$C_{52}H_{81}N_7O_{16}$
Molecular Weight:	1060.4
Form:	powder
Appearance:	Off white to brownish powder
Solubility:	Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.
Source:	<i>Aspergillus nidulans</i> , <i>Aspergillus rugulosus</i>
Storage Conditions:	-20°C
Description:	<p>Echinocandin B a natural product and lipopeptide antifungal. Discovered in 1974 in Germany, it is the first of its class of antifungals called echinocandins. Echinocandin B is a cyclic hexapeptide with a linoleoyl side chain. Anidulafungin is synthesized from Echinocandin B. Echinocandin B is soluble in ethanol, methanol, DMSO and DMF.</p>
Mechanism of Action:	<p>Echinocandin competitively inhibits β-(1,3)-D-glucan synthase, thus inhibits glucan synthesis, an essential component of the fungal cell wall. Changes in the cell wall can lead to eventual cell lysis. It does not affect mammalian cells since they do not contain β-(1,3)-D-glucan.</p>
Spectrum:	<p>Echinocandin B is against fungi including <i>Aspergillus</i> spp. and <i>Candida</i> spp. including <i>C. albicans</i>. In general, MIC₉₀ values are ≤ 2 ug/ml against <i>Candida</i> spp. Resistance mechanisms have not been fully elucidated. The molecular target is the FKS1 subunit of glucan synthase, thus mutations to this site confer varying degrees of resistance.</p>

References:

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