

Product Name:	A 54556A
Product Number:	A110
CAS Number:	95398-45-1
Molecular Formula:	$C_{38}H_{50}N_6O_8$
Molecular Weight:	718.8
Appearance:	Light tan
Storage Conditions:	-20°C
Description:	<p>A 54556A is an unusual depsipeptide isolated from <i>Streptomyces hawaiiensis</i> by researchers at Eli Lilly in 1985, featuring a trienone side chain. A 54556A is potently active against Gram positive and Gram negative bacteria, including MRSA. ADEPs are considered important leads in the development of new generations of antibiotics against resistant bacteria.</p> <p>A 54556A is soluble in ethanol, methanol, DMF and DMSO.</p>
Mechanism of Action:	<p>A 54556A acts by activating and dis-regulating Clp-family proteins.</p>
References:	<p>A54556 antibiotics and process for production thereof. Michel K.H. and Kastner R.E. U.S. Patent 4,492,650 1985.</p> <p>Structures of ClpP in complex with acyldepsipeptide antibiotics reveal its activation mechanism. Lee B-G. et al. Nat. Struct. Molec. Biol. 2010, 17, 471.</p> <p>Antibiotic acyldepsipeptides activate ClpP peptidase to degrade the cell division protein FtsZ. Sass P. et al. PNAS 2011, 108, 17474.</p>