

Product Name:	Roseoflavin
Product Number:	R039
CAS Number:	51093-55-1
Molecular Formula:	$C_{18}H_{23}N_5O_6$
Molecular Weight:	405.4
Appearance:	Red solid
Storage Conditions:	-20°C
Description:	<p>Roseoflavin is an antibacterial pigment isolated from <i>Streptomyces davawensis</i> as an anti-metabolite of riboflavin. Roseoflavin has been shown to be an important regulator of bacterial gene expression by binding to untranslated regions of RNA, so-called ribo-switching sites.</p> <p>Roseoflavin is soluble in ethanol, methanol, DMF and DMSO.</p>
Mechanism of Action:	<p>Roseoflavin is used as a substrate to mimic riboflavin in flavin biosynthesis, but leading to the formation of inactive flavin co-factors.</p>
References:	<p>Roseoflavin, a new antimicrobial pigment from <i>Streptomyces</i>. Otani S. et al. J. Antibiot. 1994, 27, 86.</p> <p>The bifunctional flavokinase/flavin adenine dinucleotide synthetase from <i>Streptomyces davawensis</i> produces inactive flavin cofactors and is not involved in resistance to the antibiotic roseoflavin. Grill S. et al. J. Bacteriol. 2008, 190, 1546.</p> <p>Riboswitches as antibacterial drug targets Blount K.F. & Breaker R.R.: Nat. Biotechnol. 2006, 24, 1558.</p>