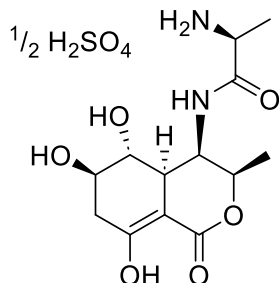


## PRODUCT DATA SHEET

### Actinobolin (sulfate) (Protein and DNA Synthesis Inhibitor)



### Specifications

Code No.	: 15172
CAS#	: 18802-17-0
Molecular Formula	: $C_{13}H_{20}N_2O_6 \cdot \frac{1}{2} H_2SO_4$
Molecular Weight	: 349.347
Source	: <i>Streptomyces</i> sp.
Supplied as	: Powder
Purity	: >98 % (HPLC)
Long Term Storage	: at -20 °C
Solubility	: Soluble in MeOH, DMSO and H <sub>2</sub> O

### Application Notes

Actinobolin was isolated from fermentation broth of *Streptomyces griseoviridis* var. *atrofaciens*.<sup>1-2)</sup> Actinobolin had inhibitory activity against microbial cultures, tentatively identified as strains of *Bacteroides melaninogenicus*, *Fusobacterium fusiforme*, *Leptotrichia buccalis* and *Veillonella parvula*, obtained from patients with periodontal disease.<sup>3)</sup> Actinobolin inhibited protein synthesis in *Escherichia coli*.<sup>4)</sup> In mouse Adenocarcinoma 755 cells, both *in vivo* and in cell culture, actinobolin inhibited the synthesis of protein and DNA.<sup>5)</sup>

### References

- 1) Actinobolin and its fermentative production. Haskell T H, *et al. US Patent*. 1962 3043830.
- 2) The structure and chemistry of actinobolin. Antosz F J, *et al. J Am Chem Soc*. 1970 **92**(16) 4933-4942.
- 3) In vitro evaluation of actinobolin as an antibiotic for the treatment of periodontal disease. Armstrong P J Jr, *et al. Appl Microbiol*. 1972 **23**(1) 88-90.
- 4) The effect of actinobolin of nucleic acid and protein synthesis in *Escherichia coli*. Hunt D E, *et al. Can J Microbiol*. 1966 **12**(3) 515-520.
- 5) Inhibition of protein synthesis in mammalian cells by actinobolin. Smithers D, *et al. Mol Pharmacol*. 1969 **5**(5) 433-445.