Aggreticin

1. Discovery, producing organism and structure¹⁾

Aggreticin was isolated from the culture broth of the actinomycete strain OM-4842 and found to be an inhibitor of platelet aggregation. Subsequently, urdanycin G was found to be identical to aggreticin²⁾.



Streptomyces sp. OM-4842

2. Physical data

Orange needles. C₃₇H₄₆O₁₄; mol wt 714.75. Sol. in MeOH, CHCl₃.

3. Biological activity¹⁾

Aggreticin significantly inhibited platelet aggregation induced by ADP, arachidonic acid and PAF (platelet activating factor); however, no inhibition was observed with collagen-induced aggregation at a concentration of $25 \,\mu\text{g/ml}$.

Inhibitory effect of aggreticin on aggregation induced by various platelet aggregating agents

Platelet aggregating agent	MIC (μg/ml)
ADP (5 μ M)	12.5
Arachidonic acid (100 μ M)	5.0
PAF (50 nM)	25.0
Collagen (100 μ g/ml)	> 25.0

Platelet aggregation was induced by platelet aggregating agents in the presence of aggreticin. The degree of aggregation was measured microscopically.

4. Reference

- 1. [396] S. Ōmura et al., J. Antibiot. 41, 812-813 (1988)
- 2. A. Zeeck et al., J. Antibiot., **42** 299-311 (1989)