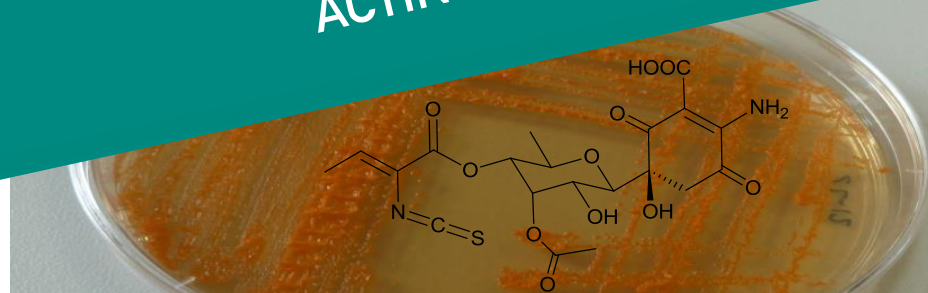




# NOVEL ANTITUMOR AGENT OF THE FAMILY OF THE PAULOMYCINS PRODUCED BY A NEW ACTINOBACTERIUM

## TECHNOLOGY OFFER



### COMPETITIVE ADVANTAGES

- ✓ **Wide and international potential market**, as one novel natural product is made available with cytotoxic activity against different tumour cell lines.
- ✓ **Simple, short and economic biotechnological process**: our method allows the production of said compound by fermentation, rather than by chemical synthesis.

### INNOVATIVE ASPECTS

- ✓ Paulomycin G is a new antitumor agent with strong cytotoxic activity against different human tumor cell lines, such as breast adenocarcinoma (MCF-7), pancreatic adenocarcinoma (MiaPaca\_2) and hepatocellular carcinoma (HepG2).
- ✓ It is also provided a new simple, short and economic procedure for obtaining said compound. This novel natural product has been obtained from the marine actinobacteria *Micromonospora matsumotoense* isolated during an oceanographic expedition to the submarine Avilés Canyon. The method consists in fermentation rather than in chemical synthesis, which is more complex, lengthy and costly.

### ABSTRACT

Marine environments are emerging as a source of new natural products of pharmacological importance and coral reefs have revealed themselves as a medium that should be investigated to discover structurally unique natural products with biomedical relevance. The development of new drugs is necessary due to the increasing need for new antitumor agents with improved activity, fewer undesirable side effects and greater selectivity.

The present invention provides a new natural product with cytotoxic activity against different tumour cell lines. This new paulomycin G is efficiently produced by the fermentation of a novel bacterial strain of *Micromonospora matsumotoense*. It is the first member of the paulomycin family lacking the paulomycose moiety.

It thus relates to a bacterial strain of *Micromonospora matsumotoense*, to a supernatant or extract of a culture of such bacterial strain, to the use of the bacterial strain for the production of the new paulomycin G, to a process for obtaining said paulomycin, to the Markush formulation of the new paulomycin G, and to a pharmaceutical or cosmetic composition containing it.

### PATENTS

ES patent applied.  
In time to seek international patent extension.

### TYPE OF COLLABORATION

Licence agreement.

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