

研究简报

## 肉芝软珊瑚 *Sarcophyton crassocaule* 中新的多羟基甾醇的分离

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**摘要** 报道了从三亚海域的一种肉芝软珊瑚 *Sarcophyton crassocaule* Mosre 中分离得到2个多羟基甾醇1和2. 通过波谱分析等方法测定了它们的化学结构, 化合物1为新化合物, 命名为 Sarcrasterol. 化合物2为已知物[24 $\xi$ -methyl-cholestane-3 $\beta$ ,5 $\beta$ ,6 $\alpha$ ,25-tetrol], 但其C24构型未确定, 通过X射线单晶衍射分析测定了其相对构型为24S.

**关键词** [肉芝软珊瑚](#) [次生代谢产物](#) [多羟基甾醇](#) [细胞毒性](#)

**分类号** [O629.61](#)

## Isolation of New Polyhydroxylated Sterol from Soft Coral *Sarcophyton crassocaule* Mosre

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**Abstract** In our continuing search of discovering bioactive substances from marine organisms, a sample of soft coral *Sarcophyton crassocaule* Mosre collected off the Sanya bay, China, was investigated. Two polyhydroxylated sterols 1 and 2 were isolated from the 95% ethanol extract of the sample by chromatography over silica gel. Compound 1, named sarcrasterol, was a new compound, its structure was established as (22*R*\*,24 $\xi$ )-methyl-cholest-5-en-3 $\beta$ ,22*a*,25,28-tetraol by spectroscopic methods. Compound 2, a known compound, was first obtained by Kobayashi, however, the relative configuration of C24 has not been determined yet. This paper reports the stereochemistry of compound 2 established as (24*S*\*)-methylcholest-3 $\beta$ ,5 $\beta$ ,6 $\alpha$ ,25-tetraol by means of X-ray single crystal diffraction analysis. Bioassay results show that compound 2 has a moderate activity against human tumor cell lines MGC-803 with an IC<sub>50</sub> value of 23.0  $\mu$ g/mL.

**Key words** [Soft coral](#) [Sarcophyton crassocaule](#) [Polyhydroxylated sterols](#) [Cytotoxicity](#)

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