## Structure H<sub>3</sub>C CH<sub>3</sub> CH<sub>3</sub> CH<sub>3</sub>

Origin: Gliocladium sp.

CAS Registry Number: 73573-88-3

CA Index Name: Mevastatin

(2S)-2-Methylbutyric Acid [(1S)-1,2,3,7,8,8aα-hexahydro-7α-methyl-8α-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yllethylpaphthalen-1β-yll Ester

Appearance: crystalline

Molecular Formula/ Weight: C<sub>23</sub>H<sub>34</sub>O<sub>5</sub>=390.52

Melting Point: 151-152°d Purity: >95.0% by HPLC

**Solubility:** Sol. In 1mg/ml ethanol, methanol,

DMSO

pKa: log P:

## **Background Information:**

Potent inhibitor of cholesterol biosynthesis and HMG-CoA. Anticholesterolaemic agent. HMG-CoA reductase inhibitor Compactin enhances the growth inhibitory effect of butyrate in the colorectal carcinoma cell line Caco-2.

Compactin is not used in therapy of hyperlipidemias because of multiple side effects but it is the only source for production of another statin - pravastatin.

In vitro, it has antiproliferative properties. High doses inhibit growth and proliferation of melanoma cells.

## Handling and Storage:

Store at -20°C.

## References:

- 1. A. Waechtershaeuser, et. al., Carcinogenesis, 22, 1061 (2001).
- 2. A. Sharon Glynn, et. al., MBC Cancer, 8, 9 (2008).