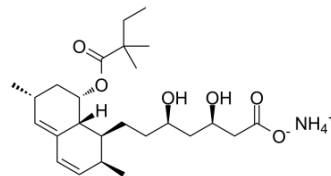


Simvastatin acid ammonium

Cat. No.:	HY-119695A
CAS No.:	139893-43-9
Molecular Formula:	C ₂₅ H ₄₃ NO ₆
Molecular Weight:	453.61
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	Simvastatin ammonium is an active metabolite of simvastatin lactone mediated by CYP3A4/5 in the intestinal wall and liver (pKa=5.5). Simvastatin ammonium reduces indoxyl sulfate-mediated reactive oxygen species and modulates OATP3A1 expression in cardiomyocytes and HEK293 cells transfected with the OATP3A1 gene ^[1] .
IC₅₀ & Target	Human Endogenous Metabolite
In Vitro	There is a pH-dependent effect on organic anion transporting polypeptide 3A1 (OATP3A1) uptake, with more efficient simvastatin acid uptake at pH5.5 in HEK293 cells transfected with the OATP3A1 gene. The Michaelis-Menten constant (Km) for simvastatin acid uptake by OATP3A1 was 0.017 μM and the Vmax was 0.995 fmol/min/105 cells ^[1] .

REFERENCES

[1]. Atilano-Roque A, et al. Characterization of simvastatin acid uptake by organic anion transporting polypeptide 3A1 (OATP3A1) and influence of drug-drug interaction. *Toxicol In Vitro*. 2017 Dec;45(Pt 1):158-165.

Caution: Product has not been fully validated for medical applications. For research use only.

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