



OCT 07, 2023

## Activation of Simvastatin

Dennis Juarez<sup>1</sup>, dfruman<sup>1</sup>

<sup>1</sup>University of California, Irvine

Fruman Lab



Dennis Juarez

### DISCLAIMER

DISCLAIMER – FOR INFORMATIONAL PURPOSES ONLY; USE AT YOUR OWN RISK

The protocol content here is for informational purposes only and does not constitute legal, medical, clinical, or safety advice, or otherwise; content added to [protocols.io](https://dx.doi.org/10.17504/protocols.io.j8nlkwd5xl5r/v1) is not peer reviewed and may not have undergone a formal approval of any kind. Information presented in this protocol should not substitute for independent professional judgment, advice, diagnosis, or treatment. Any action you take or refrain from taking using or relying upon the information presented here is strictly at your own risk. You agree that neither the Company nor any of the authors, contributors, administrators, or anyone else associated with [protocols.io](https://dx.doi.org/10.17504/protocols.io.j8nlkwd5xl5r/v1), can be held responsible for your use of the information contained in or linked to this protocol or any of our Sites/Apps and Services.

OPEN ACCESS



**DOI:**  
[dx.doi.org/10.17504/protocols.io.j8nlkwd5xl5r/v1](https://dx.doi.org/10.17504/protocols.io.j8nlkwd5xl5r/v1)

**Protocol Citation:** Dennis Juarez, dfruman 2023. Activation of Simvastatin. [protocols.io](https://dx.doi.org/10.17504/protocols.io.j8nlkwd5xl5r/v1)  
<https://dx.doi.org/10.17504/protocols.io.j8nlkwd5xl5r/v1>

**License:** This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**Protocol status:** Working  
We use this protocol and it's working

**Created:** Dec 21, 2022

**Last Modified:** Oct 07, 2023



### ABSTRACT

Activation of simvastatin lactone to active simvastatin acid by hydrolysis of lactone ring with NaOH.

### MATERIALS

Simvastatin was obtained from Cayman Chemical Company

## Preparation

- 1 For every 8.4 mg of simvastatin sodium salt, dissolve in 0.2 mL of 100% ethanol.
- 2 Add 30  $\mu$ L of 1N NaOH for every 8.4 mg of simvastatin sodium salt.
- 3 Heat the solution for at  50 °C for 2 hours.
- 4 Neutralize the solution to pH 7.2 with 1N HCl.
- 5 Bring to a volume of 1 mL per 8.4 mg of simvastatin dissolved in Step 1 with distilled H<sub>2</sub>O.
- 6 Dilute 1:1 with DMSO to yield a 10mM solution with 50% DMSO, and 10% EtOH in H<sub>2</sub>O.
- 7 Store at  -80 °C