

Jun 13, 2016

Phenol extraction of Chlorella cells

DOI

<https://dx.doi.org/10.17504/protocols.io.eshbeb6>

David Dunigan and Irina Agarkova¹

¹University of Nebraska-Lincoln

VERVE Net



Irina Agarkova

UNL

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.eshbeb6>

External link: <http://www.lclane.net/text/chlorellaphenol.html>

Protocol Citation: David Dunigan and Irina Agarkova 2016. Phenol extraction of Chlorella cells. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.eshbeb6>

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



Protocol status: Working

Created: March 29, 2016

Last Modified: November 09, 2017

Protocol Integer ID: 2601

Keywords: phenol extraction of chlorella cell, phenol extraction, chlorella cell, chlorella, extraction, cell



- 1 Pellet cells (~1/2 daily culture).
- 2 Suspend in 15 ml of liquid phenol.
- 3 Add about 0.2ml 5% cetylpyridium chloride (cationic detergent) to facilitate chlorophyll extraction.
- 4 Shake suspension until green has been extracted from cells.
- 5 Add 10 ml toluene (to reduce density).
- 6 Mix.
- 7 Centrifuge and wash pellet with aqueous buffer.

Note

Pellet will be difficult to resuspend.
- 8 Wash pellet about 5x.

Note

Pellet will become easier to resuspend after the first wash.
- 9 Use your nose as a guide to removal of phenol. If need be a UV spectrum of the final wash supernatant can be used to assure absence of phenol.