



SEP 23, 2023

OPEN ACCESS



DOI:
dx.doi.org/10.17504/protocol.s.io.4r3l228b3l1y/v1

Protocol Citation: Elias Adriaenssens 2023. Induction of non-selective bulk autophagy . **protocols.io** <https://dx.doi.org/10.17504/protocol.s.io.4r3l228b3l1y/v1>

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
We use this protocol and it's working

Created: Jul 04, 2023

Last Modified: Sep 23, 2023

PROTOCOL integer ID:
84443

Keywords: Nutrient starvation experiments

🌐 Induction of non-selective bulk autophagy

Elias Adriaenssens¹

¹Sascha Martens lab, University of Vienna, Max Perutz Labs - Vienna

ASAP Collaborative Research Network

Sascha Martens lab, University of Vienna, Max Perutz Labs - Vienna



Elias Adriaenssens

Sascha Martens lab, University of Vienna, Max Perutz Labs - ...

ABSTRACT

This protocol describes how to induce bulk (non-selective) autophagy in HeLa cells through nutrient starvation.

ATTACHMENTS

[773-1958.pdf](#)

MATERIALS

Reagents

- Hank balanced salt medium (HBSS, Thermo Fisher).
- Pierce™ Detergent Compatible Bradford Assay KitThermo FisherCatalog #23246



RIPA buffer

A	B
Tris-HCl pH 8.0	50 mM
NaCl	150 mM
sodium deoxycholate	0.50%
SDS	0.10%
NP-40	1%
cOmplete mini-EDTA protease inhibitor	
Roche Phosstop	

Nutrient starvation experiments

30m

- 1 To induce bulk autophagy, starve the cells by culturing them in Hank balanced salt medium (HBSS, Thermo Fisher) for the indicated time.

2 Collect cells by trypsinization, wash them in PBS and lyse them in RIPA buffer for  00:20:00 on ice. Clear the samples by centrifugation at  20000 x g, 4°C, 00:10:00 .

30m



3 Collect the soluble supernatant fraction and measure the protein concentrations using the Pierce Detergent Compatible Bradford Assay Kit (23246, Thermo Fisher).

4 Analyse protein samples by SDS-PAGE and western blot analysis.