



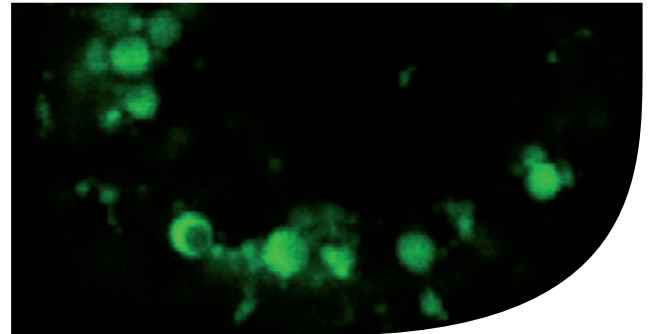
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## CUSTOMER REFERENCE

Academic research: lipid analysis of various model organisms

### Lipid changes in *Arabidopsis thaliana* *ftsh4* mitochondrial metalloprotease mutant



The laboratory of professor Hanna Janska at the Faculty of Biotechnology, University of Wrocław focuses on the role of mitochondria in plant stress responses. The Janska Lab has scrutinized the role of FTSH4 – one of the metalloproteases in mitochondria of *Arabidopsis thaliana*, a model plant. This protein suppresses oxidative damage of mitochondrial proteins by the indirect control of cardiolipin abundance.

Lipotype delivered detailed, quantitative information on lipid composition of mitochondria purified from *ftsh4* mutant and healthy plants, which helped to pinpoint the role of cardiolipin in the FTSH4 functionality. The collaboration between the Janska Lab and Lipotype demonstrates the power of lipid analysis in analyzing molecular processes occurring in organelles.

#### PUBLICATION:

**Lack of FTSH4 protease affects protein carbonylation, mitochondrial morphology and phospholipid content in mitochondria of *Arabidopsis*: new insights into a complex interplay – *Plant Physiology*, 2016**

E Smakowska, R Skibior Blaszczyk, M Czarna, M Kolodziejczak, M Kwasniak Owczarek, K Parys, C Funk, H Janska

#### About Lipotype

LIPOTYPE is a spin-off company from the Kai Simons and Andrej Shevchenko labs of the world-renowned Max-Planck-Institute of Molecular Cell Biology and Genetics in Dresden, Germany. Drawing on many years of cutting edge research experience, Lipotype delivers comprehensive, absolutely quantitative lipid analysis services for clinical and biological samples on a high-throughput scale. Lipotype offers high quality lipid analysis services for a wide range of customers and applications including biomarker identification for clinical researchers, pharma and biotech companies, functional food development for the food industry, claim support for the cosmetics industry, as well as for the small-scale profiling needs of academic researchers.

#### For enquiries, please contact:

Lipotype GmbH

Dr. Oliver Uecke, Business Development | Tatzberg 47 | 01307 Dresden | Germany

T: +49 (0) 351 79653-45 | [sales@lipotype.com](mailto:sales@lipotype.com)



[www.lipotype.com](http://www.lipotype.com)

**We offer high quality lipid analysis services for a wide range of customers and applications:**



**Biotech and pharma industry, clinical research**

*Drug discovery (mode-of-action studies, target validation, effect of delivery system on lipid metabolism), biomarker identification (pharmacodynamic, pharmacokinetic, CDx), clinical screening and diagnostics*



**Food industry**

*Intervention studies for development of functional food/nutraceuticals*



**Cosmetics and Dermatology**

*Cosmetic claim support, topical drug development, development of personalized cosmetics*



**Academic research**

*Lipid analysis of various model organisms*

