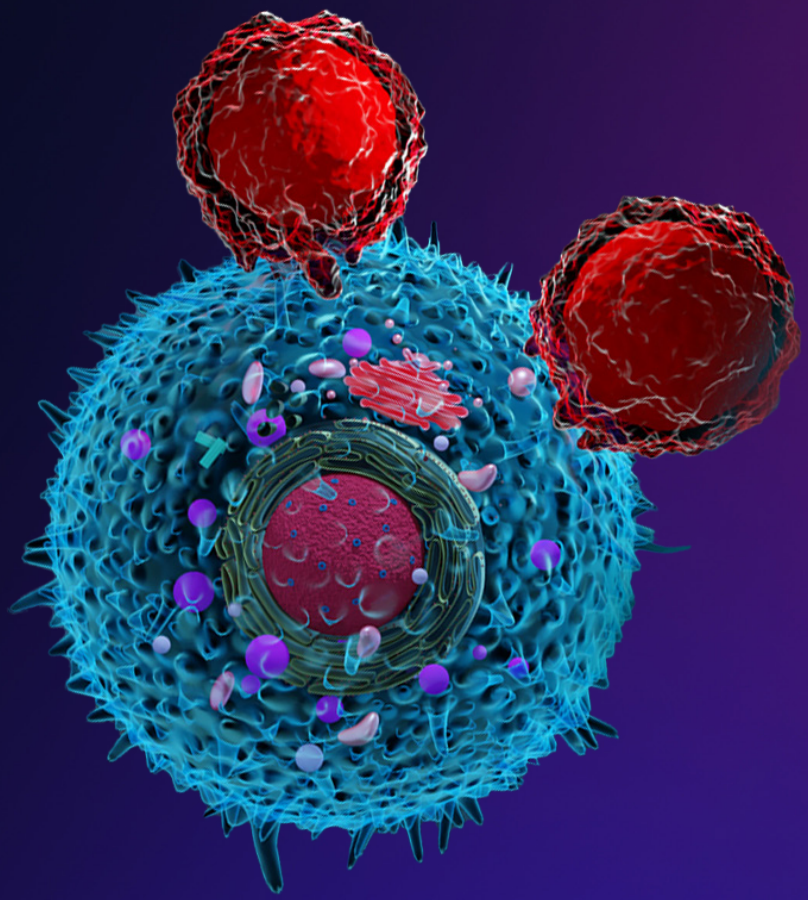
ThermoFisher SCIENTIFIC

Immunopeptidomics

Orbitrap Exploris 480 MS literature list



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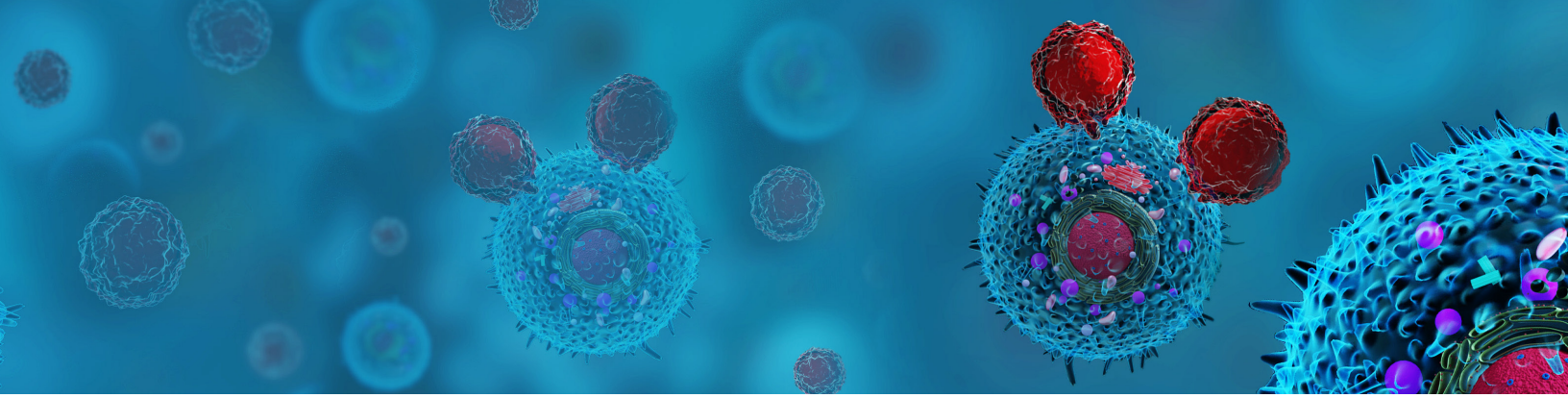

Profiling SARS-CoV-2 HLA-I peptidome reveals T cell epitopes from out-of-frame ORFs

Shira Weingarten-Gabbay, Susan Klaeger, Siranush Sarkizova, Leah R. Pearlman, Da-Yuan Chen, Kathleen M.E. Gallagher, Matthew R. Bauer, Hannah B. Taylor, W. Augustine Dunn, Christina Tarr, John Sidney, Suzanna Rachimi, Hasahn L. Conway, Katelin Katsis, Yuntong Wang, Del Leistritz-Edwards, Melissa R. Durkin, Christopher H. Tomkins-Tinch, Yaara Finkel, Aharon Nachshon, Matteo Gentili, Keith D. Rivera, Isabel P. Carulli, Vipheaviny A. Chea, Abishek Chandrashekar, Cansu Cimen Bozkus, Mary Carrington, MGH COVID-19 Collection & Processing Team, Nina Bhardwaj, Dan H. Barouch, Alessandro Sette, Marcela V. Maus, Charles M. Rice, Karl R. Clauser, Derin B. Keskin, Daniel C. Pregibon, Nir Hacohen, Steven A. Carr, Jennifer G. Abelin, Mohsan Saeed, Pardis C. Sabeti

Cell. 2021 Jul 22;184(15):3962-3980.e17

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Optimized liquid and gas phase fractionation increases HLA-peptidome coverage for primary cell and tissue samples

Susan Klaeger, Annie Apffel, Karl R. Clauser, Siranush Sarkizova, Giacomo Oliveira, Suzanna Rachimi, Phuong M. Le, Anna Tarren, Vipheaviny Chea, Jennifer G. Abelin, David A. Braun, Patrick A. Ott, Hasmik Keshishian, Nir Hacohen, Derin B. Keskin, Catherine J. Wu, and Steven A. Carr

Mol Cell Proteomics. 2021:20:100133

https://www.mcponline.org/article/S1535-9476(21)00105-5/fulltext

Reversal of viral and epigenetic HLA class I repression in Merkel cell carcinoma

Patrick C. Lee, Susan Klaeger, Phuong M. Le, Keegan Korthauer, Jingwei Cheng, Varsha Ananthapadmanabhan, Thomas C. Frost, Jonathan D. Stevens, Alan Y.L. Wong, J. Bryan Iorgulescu, Anna Y. Tarren, Vipheaviny A. Chea, Isabel P. Carulli, Camilla K. Lemvigh, Christina B. Pedersen, Ashley K. Gartin, Siranush Sarkizova, Kyle T. Wright, Letitia W. Li,1 Jason Nomburg, Shuqiang Li, Teddy Huang, Xiaoxi Liu, Lucas Pomerance, Laura M. Doherty, Annie M. Apffel, Luke J. Wallace, Suzanna Rachimi, Kristen D. Felt, Jacquelyn O. Wolff, Elizabeth Witten, Wandi Zhang, Donna Neuberg, William J. Lane, Guanglan Zhang, Lars R. Olsen, Manisha Thakuria, Scott J. Rodig, Karl R. Clauser, Gabriel J. Starrett, John G. Doench, Sara J. Buhrlage, Steven A. Carr, James A. DeCaprio, Catherine J. Wu, and Derin B. Keskin

J Clin Invest. 2022 Jul 1;132(13):e151666

https://www.jci.org/articles/view/151666

Quantitative Consequences of Protein Carriers in Immunopeptidomics and Tyrosine Phosphorylation MS2 Analyses

Lauren E Stopfer, Jason E Conage-Pough, and Forest M White

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Immunopeptidomics reveals determinants of Mycobacterium tuberculosis antigen presentation on MHC class I

Owen Leddy, Forest M White, and Bryan D Bryson

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Immunopeptidomic Analyses of Colorectal Cancers With and Without Microsatellite Instability

Jenna Cleyle, Marie-Pierre Hardy, Robin Minati, Mathieu Courcelles, Chantal Durette, Joel Lanoix, Jean-Philippe Laverdure, Krystel Vincent, Claude Perreault, and Pierre Thibault

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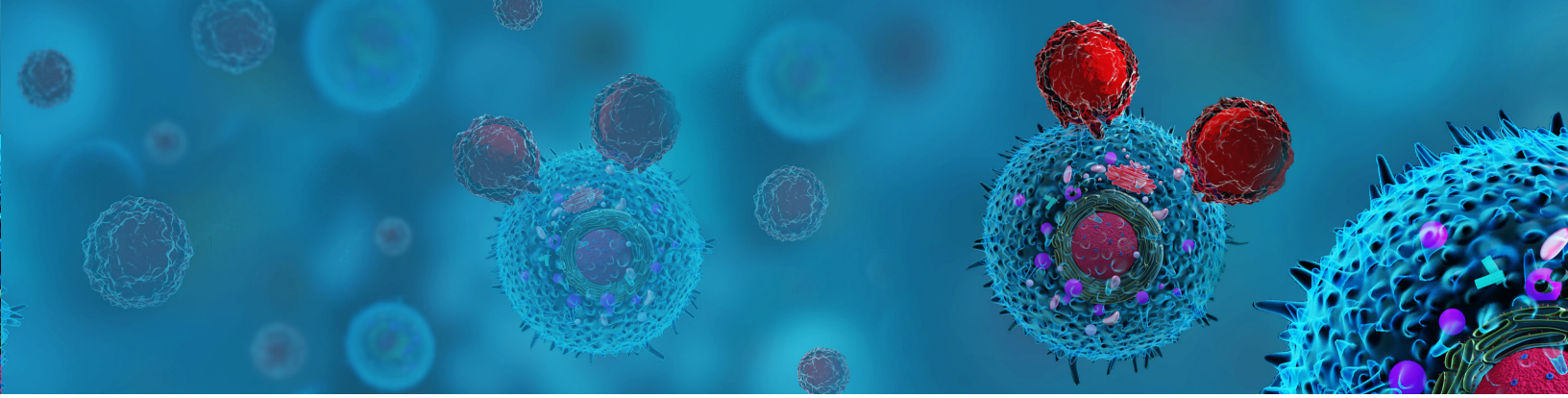

Development of an Orthotopic HPV16-Dependent Base of Tongue Tumor Model in MHC-Humanized Mice

Christoph Schifflers, Samantha Zottnick, Jonas D Förster, Sebastian Kruse, Ruwen Yang, Hendrik Wiethoff, Matthias Bozza, Karin Hoppe-Seyler, Mathias Heikenwälder, Richard P Harbottle, Carine Michiels, and Angelika B Riemer

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Workflow enabling deepscale immunopeptidome, proteome, ubiquitylome, phosphoproteome, and acetylome analyses of sample-limited tissues

Jennifer G. Abelin, Erik J. Bergstrom, Keith D. Rivera, Hannah B. Taylor, Susan Klaeger, Charles Xu, Eva K. Verzani, C. Jackson White, Hilina B. Woldemichael, Maya Virshup, Meagan E. Olive, Myranda Maynard, Stephanie A. Vartany, Joseph D. Allen, Kshiti Phulphagar, M. Harry Kane, Suzanna Rachimi, D. R. Mani, Michael A. Gillette, Shankha Satpathy, Karl R. Clauser, Namrata D. Udeshi, and Steven A. Carr

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HLA-II immunopeptidome profiling and deep learning reveal features of antigenicity to inform antigen discovery

Martin Stražar, Jihye Park, Jennifer G. Abelin, Hannah B. Taylor, Thomas K. Pedersen, Damian R. Plichta, Eric M. Brown, Basak Eraslan, Yuan-Mao Hung, Kayla Ortiz, Karl R. Clauser, Steven A. Carr, Ramnik J. Xavier, and Daniel B. Graham

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Integrated Immunopeptidomic and Proteomic Analysis of COVID-19 lung biopsies

Yin Shanye, Klaeger Susan, Chea Vipheaviny A., Carulli Isabel P., Rachimi Suzanna, Black Katharine E., Filbin Michael, Hariri Lida P., Knipe Rachel S., Padera Robert F., Stevens Jonathan D., Lane William J., Carr Steven A., Wu Catherine J., Kim Edy Yong, and Keskin Derin B.

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SAPrIm, a semi-automated protocol for mid-throughput immunopeptidomics

Terry C C Lim Kam Sian, Gabriel Goncalves, Joel R Steele, Tima Shamekhi, Liesl Bramberger, Dongbin Jin, Mohammad Shahbazy, Anthony W Purcell, Sri Ramarathinam, Stoyan Stoychev, and Pouya Faridi

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Deciphering the immunopeptidome in vivo reveals new tumour antigens

Alex M. Jaeger, Lauren E. Stopfer, Ryuhjin Ahn, Emma A. Sanders, Demi A. Sandel, William A. Freed-Pastor, William M. Rideout III, Santiago Naranjo, Tim Fessenden, Kim B. Nguyen, Peter S. Winter, Ryan E. Kohn, Peter M. K. Westcott, Jason M. Schenkel, Sean-Luc Shanahan, Alex K. Shalek, Stefani Spranger, Forest M. White, and Tyler Jacks

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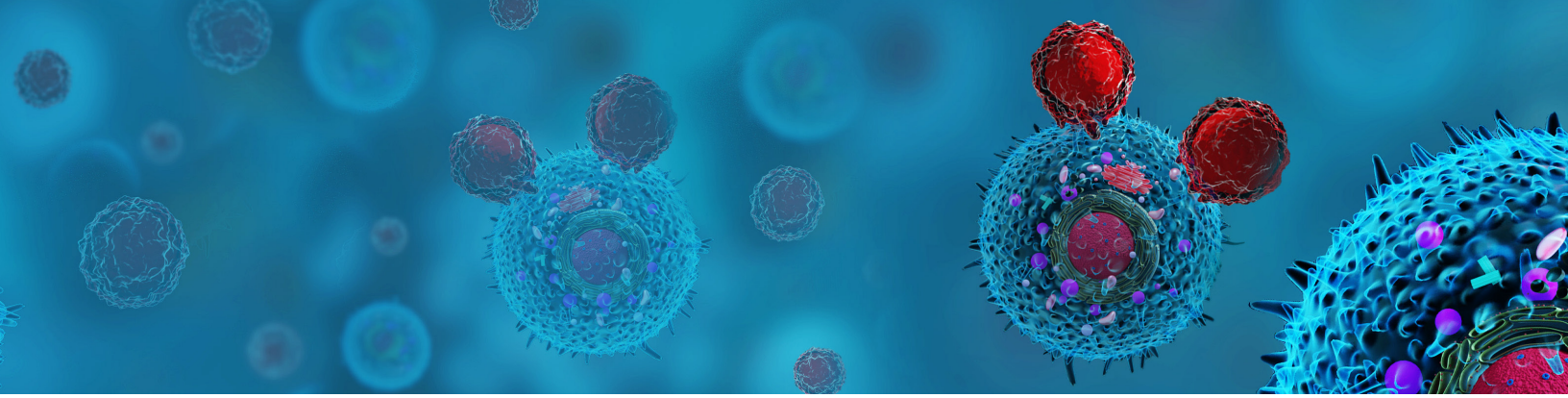

The T-cell-directed vaccine BNT162b4 encoding conserved non-spike antigens protects animals from severe SARS-CoV-2 infection

Christina M. Arieta, Yushu Joy Xie, Daniel A. Rothenberg, Huitian Diao, Dewi Harjanto, Shirisha Meda, Krisann Marquart, Byron Koenitzer, Tracey E. Sciuto, Alexander Lobo, Adam Zuiani, Stefanie A. Krumm, Carla Iris Cadima Couto, Stephanie Hein, André P. Heinen, Thomas Ziegenhals, Yunpeng Liu-Lupo, Annette B. Vogel, John R. Srouji, Stephanie Fesser, Kaushik Thanki, Kerstin Walzer, Theresa A. Addona, Özlem Türeci, Uğur Şahin, Richard B. Gaynor, and Asaf Poran,

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Integrated Immunopeptidomics and Proteomics Study of SARS-CoV-2–Infected Calu-3 Cells Reveals Dynamic Changes in Allele-specific HLA Abundance and Antigen Presentation

Rui Chen, Kelly M. Fulton, Anh Tran, Diana Duque, Kevin Kovalchik, Etienne Caron, Susan M. Twine, and Jianjun Li

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Promiscuity of Peptides Presented in HLA-DP Molecules from Different Immunogenicity Groups Is Associated With T-Cell Cross-Reactivity

Aicha Laghmouchi, Michel G. D. Kester, Conny Hoogstraten, Lois Hageman, Wendy de Klerk, Wesley Huisman, Eva A. S. Koster, Arnoud H. de Ru, Peter van Balen, Sebastian Klobuch, Peter A. van Veelen, J. H. Frederik Falkenburg, and Inge Jedema

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Identification of novel interferon responsive protein partners of human leukocyte antigen A (HLA-A) using cross-linking mass spectrometry (CLMS) approach

Ashita Singh, Monikaben Padariya, Jakub Faktor, Sachin Kote, Sara Mikac, Alicja Dziadosz, Tak W. Lam, Jack Brydon, Martin A. Wear, Kathryn L. Ball, Ted Hupp, Alicja Sznarkowska, Borek Vojtesek, and Umesh Kalathiya

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PRMT1 acts as a suppressor of MHC-I and anti-tumor immunity

Tirta M. Djajawi, Lizzy Pijpers, Akash Srivaths, David Chisanga, Kok Fei Chan, Simon J. Hogg, Liam Neil, Sarahi Mendoza Rivera, Nenad Bartonicek, Sarah L. Ellis, Terry C.C. Lim Kam Sian, Pouya Faridi, Yang Liao, Bhupinder Pal, Andreas Behren, Wei Shi, Stephin J. Vervoort, Ricky W. Johnstone, and Conor J. Kearney

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The HLA-II immunopeptidome of SARS-CoV-2

Shira Weingarten-Gabbay, Da-Yuan Chen, Siranush Sarkizova, Hannah B. Taylor, Matteo Gentili, Gabrielle M. Hernandez, Leah R. Pearlman, Matthew R. Bauer, Charles M. Rice, Karl R. Clauser, Nir Hacohen, Steven A. Carr, Jennifer G. Abelin, Mohsan Saeed, and Pardis C. Sabeti

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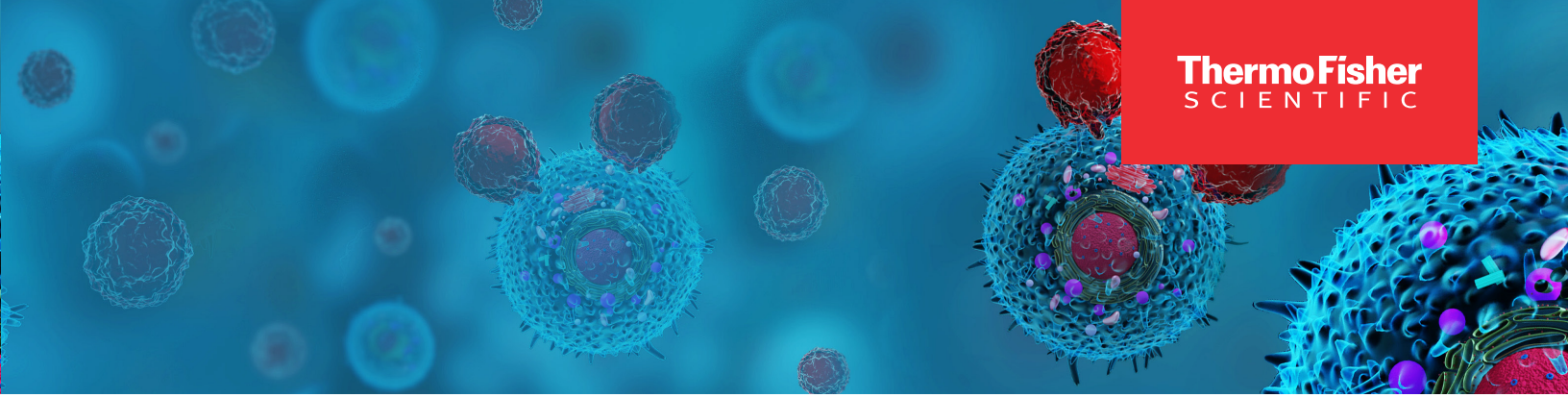

Tumour circular RNAs elicit anti-tumour immunity by encoding cryptic peptides

Di Huang, Xiaofeng Zhu, Shuying Ye, Jiahui Zhang, Jianyou Liao, Ning Zhang, Xin Zeng, Jiawen Wang, Bing Yang, Yin Zhang, Liyan Lao, Jianing Chen, Min Xin, Yan Nie, Phei Er Saw, Shicheng Su, and Erwei Song

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Epigenetic silencing by SETDB1 suppresses tumour intrinsic immunogenicity

Gabriel K. Griffin, Jingyi Wu, Arvin Iracheta-Vellve, James C. Patti, Jeffrey Hsu, Thomas Davis, Deborah Dele-Oni, Peter P. Du, Aya G. Halawi, Jeffrey J. Ishizuka, Sarah Y. Kim, Susan Klaeger, Nelson H. Knudsen, Brian C. Miller, Tung H. Nguyen, Kira E. Olander, Malvina Papanastasiou, Suzanna Rachimi, Emily J. Robitschek, Emily M. Schneider, Mitchell D. Yeary, Margaret D. Zimmer, Jacob D. Jaffe, Steven A. Carr, John G. Doench, W. Nicholas Haining, Kathleen B. Yates, Robert T. Manguso, and Bradley E. Bernstein

Nature . 2021 Jul;595(7866):309-314

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COSMIC-based mutation database enhances identification efficiency of HLA-I immunopeptidome

Fanghzou Wang, Zhenpeng Zhang, Mingsong Mao, Yudai Yang, Ping Xu, and Shichun Lu

J Transl Med . 2024 Feb 10;22(1):144

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MediMer: a versatile do-it-yourself peptide-receptive MHC class I multimer platform for tumor neoantigen-specific T cell detection

Marten Meyer, Christina Parpoulas, Titouan Barthélémy, Jonas P Becker, Pornpimol Charoentong, Yanhong Lyu, Selina Börsig, Nadja Bulbuc, Claudia Tessmer , Lisa Weinacht, David Ibberson, Patrick Schmidt, Rüdiger Pipkorn, Stefan B Eichmüller, Peter Steinberger, Katharina Lindner, Isabel Poschke, Michael Platten, Stefan Fröhling, Angelika B Riemer, Jessica C Hassel, Maria Paula Roberti, Dirk Jäger, Inka Zörnig, and Frank Momburg

Front Immunol . 2024 Jan 4:14:1294565

https://www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2023.1294565/full

Light contamination in stable isotope-labelled internal peptide standards is frequent and a potential source of false discovery and quantitation error in proteomics

Mogjiborahman Salek, Jonas D Förster, Wolf-Dieter Lehmann, and Angelika B Riemer

Anal Bioanal Chem . 2022 Mar;414(8):2545-2552

https://link.springer.com/article/10.1007/s00216-022-03931-w

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