

Agilent AssayMAP Bravo



In this citation index, you will gain fast access to the bibliographic information for all the peer reviewed publications and Agilent Application notes, as of April 2025, that use the AssayMAP Bravo for protein-protein interaction sample preparation. This citation index illustrates the wide variety of ways the AssayMAP Bravo platform has been used to help generate high quality data and enable analysis on a scale that was previously considered unattainable. The peer reviewed publications and application notes are in separate sections but both are organized in reverse chronological order by publication year and within each year alphabetically. Each publication has keywords to make it easy to find publications that match your research interest. Please note that clicking on the title to each citation and application note will take you to the publication page for that citation.

Table of contents

AssayMAP Bravo published peer reviewed papers	page 3
AssayMAP Bravo application notes	page 9

Searchable key words

Areas of study

- Biomarkers (0)
- Biopharma (1)
- Clinical Research (1)
- Forensics (0)
- Mechanism of Action (0)
- Pharmacokinetics (0)
- Phosphoproteomics (0)
- Protein-Protein Interactions (31)
- Proteomics (22)
- Signal Transduction (17)

Techniques

- BioID (15)
- Evosep Tip Loading (0)
- Immunocapture (2)
- PhosID (0)
- PhoX (6)
- TMT labeling (0)
- TurboID (4)

AssayMAP cartridge type used

- C18-5 (Reversed Phase-5 μ L resin bed) (21)
- C18-25 (Reversed Phase-25 μ L resin bed) (0)
- Fe(III)-NTA (IMAC) (6)
- PAW-5 (Protein A-5 μ L resin bed) (0)
- PAW-25 (Protein A-25 μ L resin bed) (0)
- PGW (Protein G) (0)
- RPS-5 (Reversed Phase-small pore-5 μ L resin bed) (1)
- RPS-25 (Reversed Phase-small pore-25 μ L bed) (0)
- RPW (Reversed Phase-wide pore) (0)
- SAW-5 (Streptavidin-5 μ L resin bed) (14)
- SAW-25 (Streptavidin-25 μ L resin bed) (0)
- SCX (Strong Cation Exchange) (1)

AssayMAP application used

- Affinity Purification (14)
- Fractionation (1)
- In-Solution Digestion (0)
- On-Cartridge Reaction (11)
- Peptide Cleanup (22)
- Phosphopeptide Enrichment (6)
- Protein Cleanup (0)

Note: the number in parentheses by each key word is the number of peer reviewed publications plus the number of Agilent Application notes associated with this key word

AssayMAP Bravo published peer reviewed citations

2024

Bone-marrow macrophage-derived GPNMB protein binds to orphan receptor GPR39 and plays a critical role in cardiac repair

Authors: Sivakumar Ramadoss, Juan Qin, Bo Tao, Nathan E. Thomas, Edward Cao, Rimao Wu, Daniel R. Sandoval, Ann Piermatteo, Kaare V. Grunddal, Feiyang Ma, Shen Li, Baiming Sun, Yonggang Zhou, Jijun Wan, Matteo Pellegrini, Birgitte Holst, Aldons J. Lusis, Philip L.S.M. Gordts, and Arjun Deb

Journal Citation: *Nature Cardiovascular Research* **2024**, 3, 1356–1373

Key Words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, Immunocapture

Comprehensive analysis of the proximity-dependent nuclear interactome for the oncoprotein NOTCH1 in live cells

Authors: Haydee M. Torres, Fang Fang, Danielle G. May, Paige Bosshardt, Leetoria Hinojosa, Kyle J. Roux, and Jianning Tao

Journal Citation: *Journal of Biological Chemistry* **2024**, 300(1), 105522

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Signal Transduction, BioID

Cullin-RING ligases employ geometrically optimized catalytic partners for substrate targeting

Authors: Jerry Li, Nicholas Purser, Joanna Liwocha, Daniel C. Scott, Holly A. Byers, Barbara Steigenberger, Spencer Hill, Ishita Tripathi-Giesgen, Trent Hinkle, Fynn M. Hansen, J. Rajan Prabu, Senthil K. Radhakrishnan, Donald S. Kirkpatrick, Kurt M. Reichermeier, Brenda A. Schulman, and Gary Kleiger

Journal Citation: *Molecular Cell* **2024**, 84, 1–17

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Proteomics, PhoX

Denaturing mass photometry for rapid optimization of chemical protein-protein cross-linking reactions

Authors: Hugo Gizardin-Fredon, Paulo E. Santo, Marie-Eve Chagot, Bruno Charpentier, Tiago M. Bandejas, Xavier Manival, Oscar Hernandez-Alba, and Sarah Cianféroni

Journal Citation: *Nature Communications* **2024**, 15, 3516

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions

Inferring secretory and metabolic pathway activity from omic data with secCellFie

Authors: Helen O. Masson, Mojtaba Samoudi, Caressa M. Robinson, Chih-Chung Kuo, Linus Weiss, Km Shams Ud Doha, Alex Campos, Vijay Tejwani, Hussain Dahodwala, Patrice Menard, Bjorn G. Voldborg, Bradley Robasky, Susan T. Sharfstein, and Nathan E. Lewis

Journal Citation: *Metabolic Engineering* **2024**, 81, 273–285

Key Words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics

Optimized Automated Workflow for BioID Improves Reproducibility and Identification of Protein–Protein Interactions

Authors: Emilio Cirri, Hannah Knaudt, Domenico Di Fraia, Nadine Pömpner, Norman Rahnis, Ivonne Heinze, Alessandro Ori, and Therese Dau

Journal Citation: *Journal of Proteome Research* **2024**, 23(10), 4359–4368

Key Words: SAW-5, Affinity Purification, On-Cartridge Reaction, Protein-Protein Interactions, Proteomics, TurboID, BioID

Proximity labelling of pro-interleukin-1 α reveals evolutionary conserved nuclear interactions

Authors: Rose Wellens, Victor S. Tapia, Paula I. Seoane, Hayley Bennett, Antony Adamson, Graham Coutts, Jack Rivers-Auty, Martin Lowe, Jack P. Green, Gloria Lopez-Castejon, David Brough, and Christopher Hoyle

Journal Citation: *Nature Communications* **2024**, 15, 6750

Key Words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, TurboID

Thrombin activation of the factor XI dimer is a multi-staged process for each subunit

Authors: Awital Bar Barroeta, Pascal Albanese, Thereza Kadava, Andris Jankevics, J. Arnoud Marquart, Joost C.M. Meijers, and Richard A. Scheltema

Journal Citation: *Journal of Thrombosis and Haemostasis* **2024**, 22(5), 1336–1346

Key Words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Protein-Protein Interactions, Proteomics, PhoX

2023

Cross-linking Mass Spectrometry Uncovers Interactions Between High-density Lipoproteins and the SARS-CoV-2 Spike Glycoprotein

Authors: Sean A. Burnap, Ana Maria Ortega-Prieto, Jose M. Jimenez-Guardeño, Hashim Ali, Kaloyan Takov, Matthew Fish, Manu Shankar-Hari, Mauro Giacca, Michael H. Malim, and Manuel Mayr

Journal Citation: *Molecular & Cellular Proteomics* **2023**, 22(8), 100600

Key Words: C18-5, Peptide Cleanup, Clinical Research, Proteomics, Protein-Protein Interactions

Enhanced SREBP2-driven cholesterol biosynthesis by PKC λ/ι deficiency in intestinal epithelial cells promotes aggressive serrated tumorigenesis

Authors: Yu Muta, Juan F. Linares, Anxo Martinez-Ordoñez, Angeles Duran, Tania Cid-Diaz, Hiroto Kinoshita, Xiao Zhang, Qixiu Han, Yuki Nakanishi, Naoko Nakanishi, Thekla Cordes, Gurpreet K. Arora, Marc Ruiz-Martinez, Miguel Reina-Campos, Hiroaki Kasashima, Masakazu Yashiro, Kiyoshi Maeda, Ana Albaladejo-Gonzalez, Daniel Torres-Moreno, José García-Solano, Pablo Conesa-Zamora, Giorgio Inghirami, Christian M. Metallo, Timothy F. Osborne, Maria T. Diaz-Meco, and Jorge Moscat

Journal Citation: *Nature Communications* **2023**, 14, 8075

Key Words: SAW-5, Affinity Purification, On-Cartridge Reaction, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Hormone-induced enhancer assembly requires an optimal level of hormone receptor multivalent interactions

Authors: Lizhen Chen, Zhao Zhang, Qinyu Han, Barun K. Maity, Leticia Rodrigues, Emily Zboril, Rashmi Adhikari, Su-Hyuk Ko, Xin Li, Shawn R. Yoshida, Pengya Xue, Emilie Smith, Kexin Xu, Qianben Wang, Tim Hui-Ming Huang, Shasha Chong, and Zhijie Liu

Journal Citation: *Molecular Cell* **2023**, 83(19), 3438–3456

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Protocol for establishing a protein interactome based on close physical proximity to a target protein within live budding yeast

Authors: Janhavi A. Kolhe, Neethu L. Babu, and Brian C. Freeman

Journal Citation: *Star Protocols* **2023**, 4(4), 102663

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics

2022

A BioID-Derived Proximity Interactome for SARS-CoV-2 Proteins

Authors: Danielle G. May, Laura Martin-Sancho, Valesca Anschau, Sophie Liu, Rachel J. Chrisopoulos, Kelsey L. Scott, Charles T. Halfmann, Ramon Díaz Peña, Dexter Pratt, Alexandre R. Campos, and Kyle J. Roux

Journal Citation: *Viruses* **2022**, 14(3), 611

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, BioID

An ER phospholipid hydrolase drives ER-associated mitochondrial constriction for fission and fusion

Authors: Tricia T. Nguyen and Gia K. Voeltz

Journal Citation: *elife* **2022**, 11, e84279

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, TurboID

Heat shock protein Grp78/BiP/HspA5 binds directly to TDP-43 and mitigates toxicity associated with disease pathology

Authors: Liberty François-Moutal, David Donald Scott, Andrew J. Ambrose, Christopher J. Zerio, Marina Rodriguez-Sanchez, Kumara Dissanayake, Danielle G. May, Jacob M. Carlson, Edward Barbieri, Aubin Moutal, Kyle J. Roux, James Shorter, Rajesh Khanna, Sami J. Barmada, Leeanne McGurk, and May Khanna

Journal Citation: *Scientific Reports* **2022**, 12, 8140

Key words: C18-5, SAW-5, Affinity Purification, Peptide Cleanup, Protein-Protein Interactions, Immunocapture

Transmembrane Batten Disease Proteins Interact with a Shared Network of Vesicle Sorting Proteins Impacting Their Synaptic Enrichment

Authors: Mitchell J. Rechtzigel, Brandon L. Meyerink, Hannah Leppert, Tyler B. Johnson, Jacob T. Cain, Gavin Ferrandino, Danielle G. May, Kyle J. Roux, Jon J. Brudvig, and Jill M. Weimer

Journal Citation: *Frontiers in Neuroscience* **2022**, 16, 834780

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics, BioID

2021

A Universal Peptide Matrix Interactomics Approach to Disclose Motif-Dependent Protein Binding

Authors: Evelyn Ramberger, Lorena Suarez-Artiles, Daniel Perez-Hernandez, Mohamad Haji, Oliver Popp, Ulf Reimer, Achim Leutz1, Gunnar Dittmar, and Philipp Mertins

Journal Citation: *Molecular and Cellular Proteomics* **2021**, 20, 100135

Key Words: C18-5, Peptide Cleanup, Proteomics, Protein-Protein Interactions, Signal Transduction

Hypoxia-induced acetylation of PAK1 enhances autophagy and promotes brain tumorigenesis via phosphorylating ATG5

Authors: Xing Feng, Heng Zhang, Lingbing Meng, Huiwen Song, Qingxin Zhou, Chao Qu, Pan Zhao, Qinghua Li, Chang Zou, Xing Liu, and Zhiyong Zhang

Journal Citation: *Autophagy* **2021**, 17(3), 723–742

Key words: SAW-5, Affinity Purification, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

In situ detection of protein interactions for recombinant therapeutic enzymes

Authors: Mojtaba Samoudi, Chih-Chung Kuo, Caressa M. Robinson, Km Shams-Ud-Doha, Song-Min Schinn, Stefan Kol, Linus Weiss, Sara Petersen Bjorn, Bjorn G. Voldborg, Alexandre Rosa Campos, and Nathan E. Lewis

Journal Citation: *Biotechnology and Bioengineering* **2021**, 118(2), 890–904

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Biopharma, Protein-Protein Interactions, Proteomics, BioID

Notch-Jagged signaling complex defined by an interaction mosaic

Authors: Matthieu R. Zeronian, Oleg Klykov, Julia Portell i de Montserrat, Maria J. Konijnenberg, Anamika Gaur, Richard A. Scheltema, and Bert J. C. Janssen

Journal Citation: *PNAS* **2021**, 118(30), e2102502118

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Signal Transduction, PhoX

Nse5/6 inhibits the Smc5/6 ATPase and modulates DNA substrate binding

Authors: Michael Taschner, Jerome Basquin, Barbara Steigenberger, Ingmar Schaefer, Young-Min Soh, Claire Basquin, Esben Lorentzen, Markus Raschle, Richard A. Scheltema, and Stephan Gruber

Journal Citation: *The EMBO Journal* **2021**, 40(15), e107807

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Signal Transduction, PhoX

PKC λ /I inhibition activates an ULK2-mediated interferon response to repress tumorigenesis

Authors: Juan F. Linares, Xiao Zhang, Anxo Martinez-Ordonez, Angeles Duran, Hiroto Kinoshita, Hiroaki Kasashima, Naoko Nakanishi, Yuki Nakanishi, Ryan Carelli, Luca Cappelli, Esperanza Arias, Masakazu Yashiro, Masaichi Ohira, Sanjay Patel, Giorgio Inghirami, Massimo Loda, Ana Maria Cuervo, Maria T. Diaz-Meco, and Jorge Moscat

Journal Citation: *Molecular Cell* **2021**, 81(21), 4509–4526

Key Words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Structure of the human signal peptidase complex reveals the determinants for signal peptide cleavage

Authors: A. Manuel Liaci, Barbara Steigenberger, Paulo Cesar Telles de Souza, Sem Tamara, Mariska Gröllers-Mulderij, Patrick Ogrissek, Siewert J. Marrink, Richard A. Scheltema, and Friedrich Förster

Journal Citation: *Molecular Cell* **2021**, 81(19), 3934–3948

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, PhoX

2020

Comparative Application of BioID and TurboID for Protein-Proximity Biotinylation

Authors: Danielle G. May, Kelsey L. Scott, Alexandre R. Campos, and Kyle J. Roux

Journal Citation: *Cells* **2020**, 9(5), 1070–1090

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, BioID, TurboID

Enhancer reprogramming driven by high-order assemblies of transcription factor promotes phenotypic plasticity and breast cancer endocrine resistance

Authors: Mingjun Bi, Zhao Zhang, Yi-Zhou Jiang, Pengya Xue, Hu Wang, Zhao Lai, Xiaoyong Fu, Carmine De Angelis, Yue Gong, Zhen Gao, Jianhua Ruan, Victor X. Jin, Elisabetta Marangoni, Elodie Montaudon, Christopher K. Glass, Wei Li, Tim Hui-Ming Huang, Zhi-Ning Shao, Rachel Schiff, Lizhen Chen, and Zhijie Liu

Journal Citation: *Nature Cell Biology* **2020**, 22, 701–715

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Signal Transduction, BioID

PKC λ /I Loss Induces Autophagy, Oxidative Phosphorylation, and NRF2 to Promote Liver Cancer Progression

Authors: Yotaro Kudo, Masayuki Sugimoto, Esperanza Arias, Hiroaki Kasashima, Thekla Cordes, Juan F. Linares, Angeles Duran, Yuki Nakanishi, Naoko Nakanishi, Antoine L'Hermitte, Alex Campos, Nadia Senni, Tarmo Rooslid, Lewis R. Roberts, Ana Maria Cuervo, Christian M. Metallo, Michael Karin, Maria T. Diaz-Meco, and Jorge Moscat

Journal Citation: *Cancer Cell* **2020**, 38(2), 247–262

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Targeting CLK3 inhibits the progression of cholangiocarcinoma by reprogramming nucleotide metabolism

Authors: Qingxin Zhou, Meihua Lin, Xing Feng, Fei Ma, Yuekun Zhu, Xing Liu, Chao Qu, Hong Sui, Bei Sun, Anlong Zhu, Heng Zhang, He Huang, Zhi Gao, Yongxiang Zhao, Jiangyun Sun, Yuxian Bai, Jufei Jin, Xuehui Hong, Chang Zou, and Zhiyong Zhang

Journal Citation: *Journal of Experimental Medicine* **2020**, 217(8), e20191779

Key words: SAW-5, Affinity Purification, Protein-Protein Interactions, Signal Transduction, BioID

2019

A Non-canonical Role of YAP/TEAD Is Required for Activation of Estrogen-Regulated Enhancers in Breast Cancer

Authors: Chi Zhu, Li Li, Zhao Zhang, Mingjun Bi, Hu Wang, Wenyue Su, Karen Hernandez, Pingping Liu, Junqiang Chen, Mingqiu Chen, Tim Hui-Ming Huang, Lizhen Chen, and Zhijie Liu

Journal Citation: *Molecular Cell* **2019**, 75(4), 791–806

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Increased Serine and One-Carbon Pathway Metabolism by PKC α /I Deficiency Promotes Neuroendocrine Prostate Cancer

Authors: Miguel Reina-Campos, Juan F. Linares, Angeles Duran, Thekla Cordes, Antoine L'Hermite, Mehmet G. Badur, Munveer S. Bhangoo, Phataraporn K. Thorson, Alicia Richards, Tarmo Rooslid, Dolores C. Garcia-Olmo, Syongh Y. Nam-Cha, Antonio S. Salinas-Sanchez, Ken Eng, Himisha Beltran, David A. Scott, Christian M. Metallo, Jorge Moscat, and Maria T. Diaz-Meco

Journal Citation: *Cancer Cell* **2019**, 35(3), 385–400

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

PhoX: An IMAC-Enrichable Cross-Linking Reagent

Authors: Barbara Steigenberger, Roland J. Pieters, Albert J. R. Heck, and Richard A. Scheltema

Journal Citation: *ACS Central Science* **2019**, 5(9), 1514–1522

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Proteomics, Signal Transduction, PhoX

2016

Genetic and Proteomic Interrogation of Lower Confidence Candidate Genes Reveals Signaling Networks in B-Catenin-Active Cancers

Authors: Joseph Rosenbluh, Johnathan Mercer, Yashaswi Shrestha, Rachel Oliver, Pablo Tamayo, John G. Doench, Itay Tirosh, Federica Piccioni, Ella Hartenian, Heiko Horn, Lola Fagbami, David E. Root, Jacob Jaffe, Kasper Lage, Jesse S. Boehm, and William C. Hahn

Journal Citation: *Cell Systems* **2016**, 3(3), 302–316

Key words: RPS-5, SCX, Fractionation, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction

AssayMAP Bravo Application notes

www.agilent.com/chem/proteinsampleprep

RA250513.304

This information is subject to change without notice.

© Agilent Technologies, Inc. 2024, 2025
Printed in the USA, May 16, 2025
5994-7754EN