

Product Catalog

Functional profiling of each cell type across a large assay menu of single-cell, population, and software solutions with walk-away automation



CAT-1 REV 4.0

For Research Use Only. Not for Use in Diagnostic Procedures.



IsoSpark™ System

The IsoSpark is a personalized functional proteomics system for every lab. Accelerate personalized medicine across research areas & high-impact applications, all in one intuitive system that fits on any lab bench. Across all applications, discover direct functional profiling of single-cell and bulk population insights with walk-away automation.

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IsoSpeak Software

IsoSpeak is the first automated informatics suite for advanced, functional, cellular mapping and visualizations which can reveal correlative insights into true, functional immune biology. IsoSpeak's push-button user interface and advanced automation allows users to visualize, target, and utilize data from direct functional proteomic profiling of single cells and bulk populations.

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Contents

IsoCode® Chips



Single-Cell Secretome

The Single-Cell Secretome solution enables the discovery of better biomarkers and accelerated development through functional immune landscaping of each immune cell, allowing for complete single-cell functional characterization. Detect rare subsets of highly functionally active cells to reveal functional biological drivers of persistence, potency, durability and more.

08

Single-Cell Signaling

The Single-Cell Intracellular Proteome for intracellular signaling omics provides functional characterization of the signaling networks and resistance pathways of cancer cells for the development of improved treatments to combat therapeutic resistance.

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CodePlex® Chips



CodePlex® Chips

With high-plex walk-away immunoassays, unleash super-powered and super-automated multiplexed proteomics in very low sample volumes to access insights right away. With a faster and more streamlined approach to generating multiplexed bulk cytokine data via a fully automated workflow, CodePlex offers a modular solution to bulk cytokine data analysis and minimizes variability from user input.

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Meteor™ Chips



Meteor™ Chips

IsoSpeak is the first automated informatics suite for advanced, functional, cellular mapping and visualizations which can reveal correlative insights into true, functional immune biology. IsoSpeak's push-button user interface and advanced automation allows users to visualize, target, and utilize data from direct functional proteomic profiling of single cells and bulk populations.

14

ISOSPARK SYSTEM

The IsoSpark is a personalized functional proteomics system for every lab. Accelerate personalized medicine across research areas & high-impact applications, all in one intuitive system that fits on any lab bench. Across all applications, discover direct functional profiling of single-cell and bulk population insights with walk-away automation.

Class 1 Laser Product



Intuitive Design

Elegantly designed with an intuitive user interface for ease-of-use and simplicity, completely automated for walk-away proteomics. Combining superpowered innovations into a system with just 18 inches in footprint for ease-of-use and same day insights.



Reagent Bay

Load your reagents with a single-use cartridge for ultimate ease-of-use.



Software-Enabled Optics

Multi-colored lasers enable sensitive and precision imaging of each cell via surface fluorescence, enabling quantitative detection of proteins associated with each single cell.



LED Status Bar

Instantly know the status of your experimental run with a quick glance.



Fluidics-Enabled Flow Cells

Our fluidics-enabled flow cell allows us to deliver the highest quality ELISA reagents with uniform flow in a completely hands-off manner, maximizing consistency.



Touch Screen UI

Award winning ease-of-use, now available on the IsoSpark.



Deep Hardware Connection with the Software

Access the most efficient lab collaboration tool with advanced figures and export features that help drive decisions across the organization.

PRODUCT	PRODUCT CODE
IsoSpark System	ISOSPARK-1000-1
IsoSpark Service Agreement – 1 year	SVCISS-1000-1
IsoSpark Service Agreement – 2 years	SVCISS-1000-2
IsoSpark Service Agreement – 3 years	SVCISS-1000-3
IsoSpark Duo	ISOSPARK-1001-1
IsoSpark Duo Service Agreement – 1 year	SVCISS-1000-4
IsoSpark Duo Service Agreement – 2 years	SVCISS-1000-5
IsoSpark Duo Service Agreement – 3 years	SVCISS-1000-6

RESEARCH AREAS

- Cancer Immunology
- Cell Therapy
- Infectious Disease
- Inflammation
- Targeted Therapies





ISOSPEAK SOFTWARE

IsoSpeak is the first automated informatics suite for advanced, functional, cellular mapping and visualizations which can reveal correlative insights into true, functional immune biology. IsoSpeak's push-button user interface and advanced automation allows users to visualize, target, and utilize data from direct functional proteomic profiling of single cells and bulk populations.



Unique Visualization Options



Polyfunctional Overview



3D Cytokine Mapping tSNE



Polyfunctional Strength Index



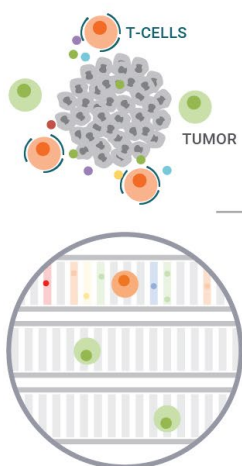
Polyfunctional Heat Map

Single-Cell Cytokine Visualizations Within IsoSpeak Software: Stratify, Correlate, & Gather Insight By Revealing Differences

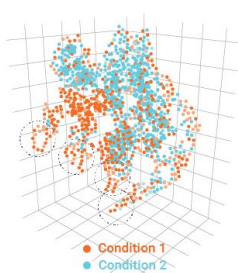
UNCOVER TRUE BIOLOGY

Responders: 15
Non-responders: 15

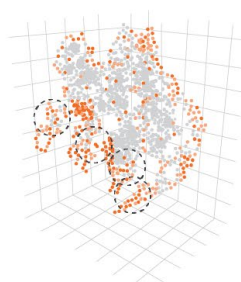
Source of differences
in patient response?



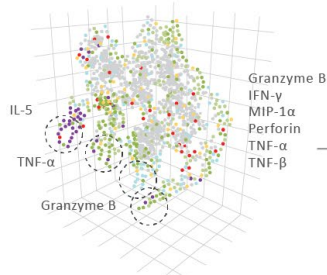
STRATIFY SAMPLES



REVEAL FUNCTIONAL DIFFERENCES

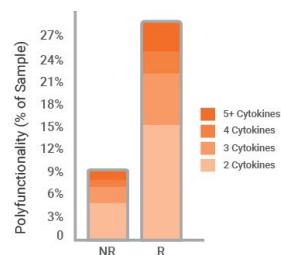


PINPOINT THE BIOLOGICAL DRIVERS

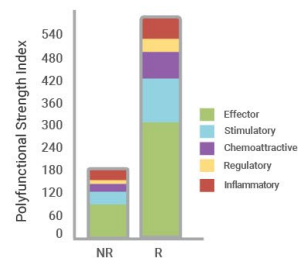


REVEAL SIGNIFICANCE

Multiplexed Cells:
% Polyfunctional Single T-Cells



Polyfunctional Strength Index:
PSI = Polyfunctionality x Intensity



PRODUCT

IsoSpeak Software

PRODUCT CODE

ISOSPEAK-1000-1

RESEARCH AREAS

- Cancer Immunology
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- Targeted Therapies



SINGLE-CELL SECRETOME

The Single-Cell Secretome solution enables the discovery of better biomarkers and accelerated development through functional immune landscaping of each immune cell, allowing for complete single-cell functional characterization. Detect rare subsets of highly functionally active cells to reveal functional biological drivers of persistence, potency, durability and more.

Human Adaptive Immune

Granzyme B, IFN- γ , MIP-1 α , Perforin, TNF- α , TNF- β , GM-CSF, IL-2, IL-5, IL-7, IL-8, IL-9, IL-12, IL-15, IL-21, CCL11, IP-10, MIP-1 β , RANTES, IL-4, IL-10, IL-13, IL-22, TGF β 1, sCD137, sCD40L, IL-1 β , IL-6, IL-17A, IL-17F, MCP-1, MCP-4

Mouse Adaptive Immune

Granzyme B, IFN- γ , MIP-1 α , TNF- α , GM-CSF, IL-2, IL-5, IL-7, IL-12p70, IL-15, IL-21, sCD137, CCL11, CXCL1, CXCL13, IP-10, RANTES, Fas, IL-4, IL-10, IL-13, IL-27, TGF β 1, IL-6, IL-17A, MCP-1, IL-1 β

Human Innate Immune

IFN- γ , MIP-1 α , TNF- α , TNF- β , GM-CSF, IL-8, IL-9, IL-15, IL-18, TGF- α , IL-5, CCL11, IP-10, MIP-1 β , RANTES, BCA-1, IL-10, IL-13, IL-22, sCD40L, IL-1 β , IL-6, IL-12-p40, IL-12, IL-17A, IL-17F, MCP-1, MCP-4, MIF, EGF, PDGF-BB, VEGF

Human Inflammation

GM-CSF, IFN- γ , IL-2, IL-12, TNF- α , TNF- β , IL-4, IL-5, IL-7, IL-9, IL-13, CCL11, IL-8, IP-10, MCP-1, MCP-4, MIP-1 α , MIP-1 β , RANTES, IL-10, IL-15, IL-22, TGF- β 1, IL-1 β , IL-6, IL-17A, IL-17F, IL-21, Granzyme B, Perforin, sCD40L, sCD137

Mouse Innate Immune

IFN- γ , TNF- α , MIP-1 α , IL-15, GM-CSF, IL-5, IL-10, IL-13, IL-6, IL-17A, MCP-1, IP-10, MIP-1 β , EGF, PDGF-BB, MIF

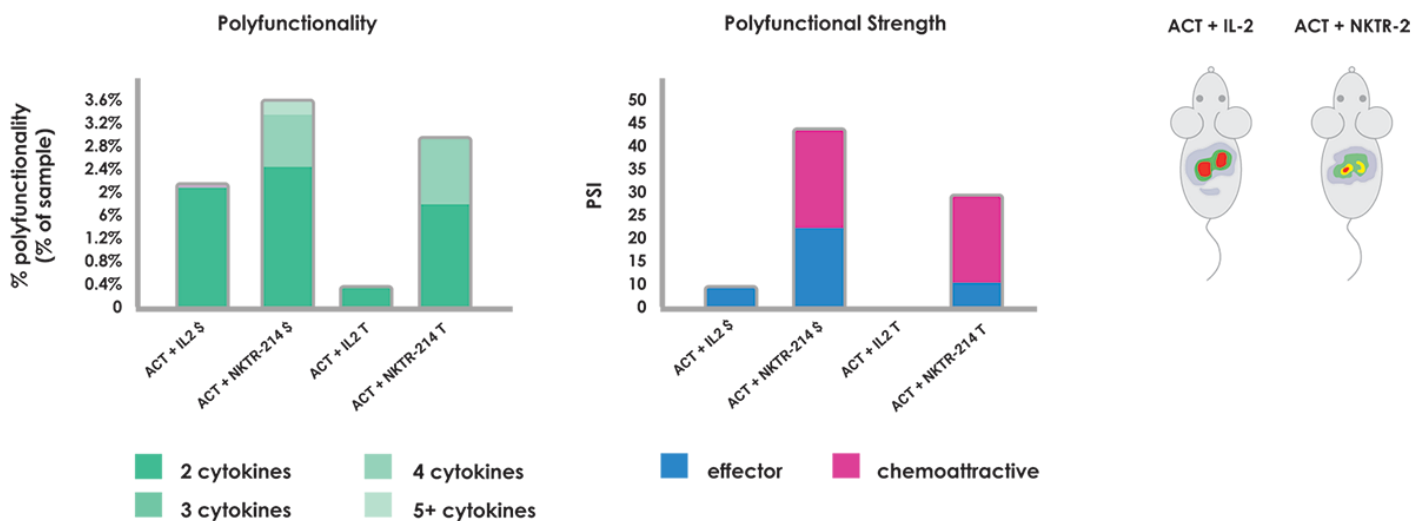
Human Natural Killer

Granzyme B, IFN- γ , MIP-1 α , Perforin, TNF- α , TNF- β , GM-CSF, IL-2, IL-5, IL-7, IL-8, IL-9, IL-12, IL-15, IL-21, CCL11, IP-10, MIP-1 β , RANTES, IL-4, IL-10, IL-13, IL-22, TGF β 1, sCD137, sCD40L, IL-1 β , IL-6, IL-17A, IL-17F, MCP-1, MCP-4



Includes **abcam** antibodies

Bruker's Functional Immune Landscaping Enables Critical Single-Cell Discoveries



Polyfunctionality is considerably increased in samples treated with ACT+NKTR-214 vs ACT+IL-2. NKTR2-14 elicited more polyfunctional cell subsets.

Parisi, G., Saco, J.D., Salazar, F.B. et al. Persistence of adoptively transferred T cells with a kinetically engineered IL-2 receptor agonist. Nat Commun 11, 660 (2020).

ISOCODE CHIPS - ISOLIGHT	PRODUCT CODE
Single-Cell Adaptive Immune Chip – (H) 4	ISOCODE-1001-4
Single-Cell Adaptive Immune Chip – (H) 8	ISOCODE-1001-8
Single-Cell Adaptive Immune Chip – (M) 4	ISOCODE-1004-4
Single-Cell Adaptive Immune Chip – (M) 8	ISOCODE-1004-8
Single-Cell Adaptive Immune Chip – (M) 4	ISOCODE-1004-4
Single-Cell Adaptive Immune Chip – (M) 8	ISOCODE-1004-8
Single-Cell Inflammation Chip – (H) 4	ISOCODE-1003-4
Single-Cell Inflammation Chip – (H) 8	ISOCODE-1003-8
Single-Cell Innate Immune Chip – (H) 4	ISOCODE-3L02-4
Single-Cell Innate Immune Chip – (H) 8	ISOCODE-3L02-8
Single-Cell Innate Immune Chip – (M) 4	ISOCODE-3L04-4
Single-Cell Innate Immune Chip – (M) 8	ISOCODE-3L04-8
Single-Cell Natural Killer Chip – (H) 4	ISOCODE-3L03-4
Single-Cell Natural Killer Chip – (H) 8	ISOCODE-3L03-8

ISOCODE CHIPS - ISOSPARK	PRODUCT CODE
Single-Cell Adaptive Immune Chip – (H) 4	ISOCODE-1001-4
Single-Cell Adaptive Immune Chip – (M) 4	ISOCODE-1004-4
Single-Cell Inflammation Chip – (H) 4	ISOCODE-1003-4
Single-Cell Innate Immune Chip – (H) 4	ISOCODE-3L02-4
Single-Cell Innate Immune Chip – (M) 4	ISOCODE-3L04-4
Single-Cell Natural Killer Chip – (H) 4	ISOCODE-3L03-4

PANELS - ISOLIGHT	PRODUCT CODE
Single-Cell Adaptive Immune Panel – (H) 4	PANEL-1001-4
Single-Cell Adaptive Immune Panel – (H) 8	PANEL-1001-8
Single-Cell Adaptive Immune Panel – (M) 4	PANEL-1004-4
Single-Cell Adaptive Immune Panel – (M) 8	PANEL-1004-8
Single-Cell Inflammation Panel – (H) 4	PANEL-1003-4
Single-Cell Inflammation Panel – (H) 8	PANEL-1003-8
Single-Cell Innate Immune Panel – (H) 4	PANEL-3L02-4
Single-Cell Innate Immune Panel – (H) 8	PANEL-3L02-8
Single-Cell Innate Immune Panel – (M) 4	PANEL-3L04-4
Single-Cell Innate Immune Panel – (M) 8	PANEL-3L04-8
Single-Cell Natural Killer Panel – (M) 4	PANEL-3L03-4
Single-Cell Natural Killer Panel – (M) 8	PANEL-3L03-8

PANELS - ISOSPARK	PRODUCT CODE
Single-Cell Adaptive Immune Panel – (H) 4	S-PANEL-1001-4
Single-Cell Adaptive Immune Panel – (M) 4	S-PANEL-1004-4
Single-Cell Inflammation Panel – (H) 4	S-PANEL-1003-4
Single-Cell Innate Immune Panel – (H) 4	S-PANEL-3L02-4
Single-Cell Innate Immune Panel – (M) 4	S-PANEL-3L04-4
Single-Cell Natural Killer Panel – (H) 4	S-PANEL-3L03-4

RESEARCH AREAS

- Cancer Immunology
- Cell Therapy
- Infectious Disease
- Inflammation
- Targeted Therapies



SINGLE-CELL SIGNALING

The Single-Cell Signaling solution for intracellular signaling omics provides functional characterization of the signaling networks and resistance pathways of cancer cells for the development of improved treatments to combat therapeutic resistance.

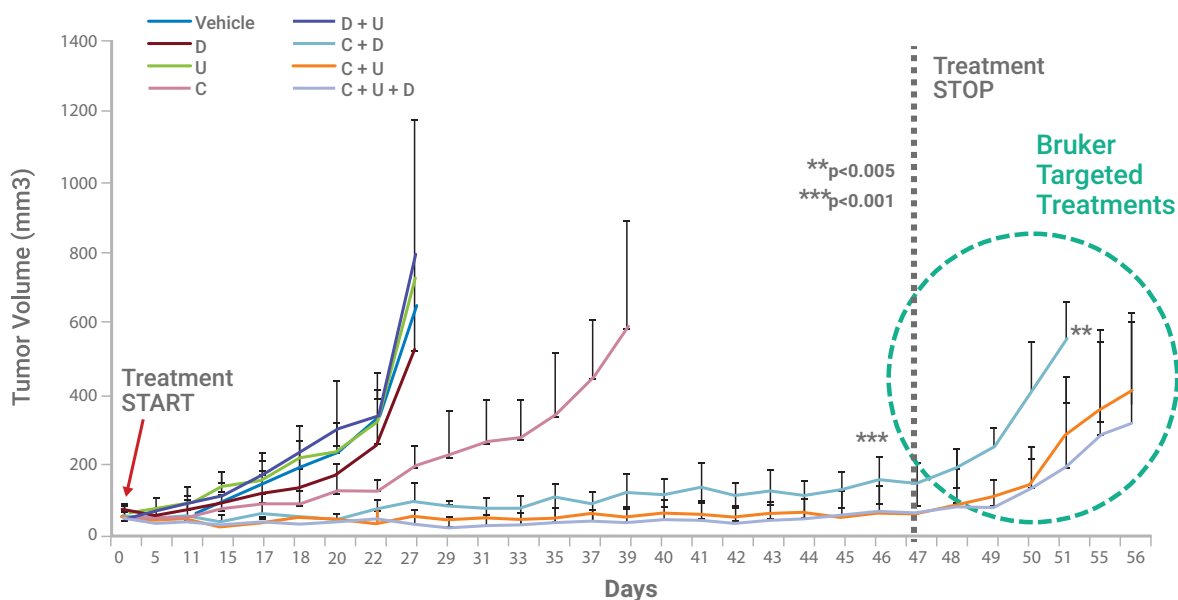
Human Tumor Signaling

P-PRAS40, P-IkBα, P-NF-κB p65, P-Met, P-p44/42 MAPK, P-S6 Ribosomal, P-p90RSK, P-STAT3, P-MEK1/2, P-Stat1, P-Stat5, P-eIF4E, Cleaved PARP*, Alpha Tubulin

*Inquire About Availability



Prediction and Treatment of Resistance in Tumor Cells in Pre-Clinical Studies



Single-cell Signaling identified rare intracellular signatures and rare subsets of cells that lead to resistance in glioblastoma. These signatures correlated with better therapies, leading to longer term survival in mouse models.

Wei W et al. Single-Cell Phosphoproteomics Resolves Adaptive Signaling Dynamics and Informs Targeted Combination Therapy in Glioblastoma., Cancer Cell, 29:4 563-573, 2016

ISOCODE CHIPS	PRODUCT CODE
Single-Cell Intracellular Chips – 4	ISOCODE-4L01-4

PANELS - ISOLIGHT	PRODUCT CODE
Single-Cell Intracellular Tumor Signaling Panel – (H) 4	PANEL-4L01-4

PANELS - ISOSPARK	PRODUCT CODE
Single-Cell Intracellular Tumor Signaling Panel – (H) 4	S-PANEL-4L01-4

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CODEPLEX

With high-plex walk-away immunoassays, unleash super-powered and super-automated multiplexed proteomics in very low sample volumes to access insights right away. With a faster and more streamlined approach to generating multiplexed bulk cytokine data via a fully automated workflow, CodePlex offers a modular solution to bulk cytokine data analysis and minimizes variability from user input.

Panel Menu

CXCL5, EGF, GM-CSF, Granzyme B, IFN- γ , IL-1 α , IL-1 β , IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-12, IL-13, IL-15, IL-17A, IP-10, KC, MCP-1, MIF, MIP-1 α , MIP-1 β , PDGF-BB, Perforin, RANTES, sCD137, TNF- α , TNF- β , VEGF

Human Adaptive Immune

GM-CSF, Granzyme B, IFN- γ , IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-13, IL-15, IL-17A, IP-10, MCP-1, MIP-1 α , MIP-1 β , Perforin, sCD137, TNF- α , TNF- β

Mouse Adaptive Immune

GM-CSF, IFN- γ , IL-1 β , IL-2, IL-4, IL-5, IL-6, IL-10, IL-12, IL-17A, IP-10, KC, MCP-1, MIP-1 α , RANTES, TNF- α

Human Innate Immune

EGF, GM-CSF, Granzyme B, IFN- γ , IL-1 β , IL-4, IL-6, IL-7, IL-8, IL-10, IL-15, IP-10, MCP-1, MIP-1 α , MIP-1 β , PDGF-BB, sCD137, TNF- α , VEGF

Mouse Innate Immune

IFN- γ , TNF- α , MIP-1 α , IL-15, GM-CSF, IL-5, IL-10, IL-13, IL-6, IL-17A, MCP-1, IP-10, MIP-1 β , EGF, PDGF-BB, MIF

Mouse Inflammation

IFN- γ , TNF- α , MIP-1 α , IL-2, IL-5, IL-10, IL-13, IL-4, IL-6, IL-1 β , IL-17A, IL-12, MCP-1, IP-10, KC, GM-CSF

Human Cytokine Storm*

GM-CSF, IFN- γ , IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-13, IL-17A, IP-10, MCP-1, MIP-1 α , MIP-1 β , Perforin, TNF- α

Human Stem Cell Signaling*

IL-17A, MIP-1 α , IL-6, IL-4, MIP-1 β , IL-8, IFN- γ , GM-CSF, IL-10, TNF- α , MCP-1, IL-2, IL-15, RANTES, IL-1 α , IL-1 β , CXCL5

Human Cancer Signaling*

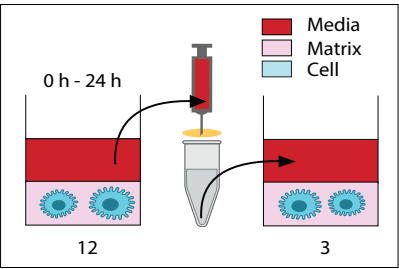
EGF, IFN- γ , IL-1 α , IL-1 β , IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-13, MCP-1, MIF, PDGF-BB, RANTES, TNF- α



Includes **abcam** antibodies

*Limited Quantities

Secreted Cytokines Promote Tumor Metastasis



HT1080WT							
	10	20	50	100	150		R ²
EGF							0.07
FGF							0.01
HGF							0.01
VEGF							0.40
PDGF							0.02
MIF							0.82
MCP1							0.09
RANTES							0.57
MIP1a							0.01
IFN γ							0.17
TNF α							0.22
TNF β							0.68
GMCSF							0.01
IL1a							0.17
IL1b							0.10
IL2							0.09
IL4							0.14
IL5							0.34
IL6							0.85
IL8							0.63
IL10							0.00
IL12							0.03
IL13							0.25
FITC							0.41
0							57.7AU

MDA-MB-231					
	10	20	50	100	R ²
EGF					0.91
FGF					0.86
HGF					0.03
VEGF					0.53
PDGF					0.06
MIF					0.27
MCP1					0.11
RANTES					0.00
MIP1a					0.00
IFN γ					0.00
TNF α					0.38
TNF β					0.93
GMCSF					0.60
IL1a					0.11
IL1b					0.02
IL2					0.39
IL4					0.21
IL5					0.61
IL6					0.99
IL8					0.82
IL10					0.00
IL12					0.30
IL13					0.40
FITC					0.24
0					8.9AU

CodePlex revealed a possible mechanism promoting tumor cell migration while inferring an approach to reduce metastatic capability of tumor cells.

Jayatilaka H, et al. Synergistic IL-6 and IL-8 paracrine signalling pathway infers a strategy to inhibit tumour cell migration. Nature Communications 8: 15584, 2017

PANELS - ISOLIGHT	PRODUCT CODE
CodePlex Adaptive Immune Panel – (H) 1	PANEL-2L01-1
CodePlex Adaptive Immune Panel – (H) 4	PANEL-2L01-4
CodePlex Adaptive Immune Panel – (H) 8	PANEL-2L01-8
CodePlex Adaptive Immune Panel – (M) 1	PANEL-2L04-1
CodePlex Adaptive Immune Panel – (M) 4	PANEL-2L04-4
CodePlex Adaptive Immune Panel – (M) 8	PANEL-2L04-8
CodePlex Innate Immune Panel – (H) 1	PANEL-2L03-1
CodePlex Innate Immune Panel – (H) 4	PANEL-2L03-4
CodePlex Innate Immune Panel – (H) 8	PANEL-2L03-8
CodePlex Innate Immune Panel – (M) 1	PANEL-2L12-1
CodePlex Innate Immune Panel – (M) 4	PANEL-2L12-4
CodePlex Innate Immune Panel – (M) 8	PANEL-2L12-8
CodePlex Inflammation Panel – (M) 1	PANEL-2L10-1
CodePlex Inflammation Panel – (M) 4	PANEL-2L10-4
CodePlex Inflammation Panel – (M) 8	PANEL-2L10-8

CODEPLEX CHIPS - ISOLIGHT	PRODUCT CODE
Codeplex Loading Training Chip	CODEPLEX-2100-1
CodePlex Adaptive Immune Chip – (H) 1	CODEPLEX-2L01-1
CodePlex Adaptive Immune Chip – (H) 4	CODEPLEX-2L01-4
CodePlex Adaptive Immune Chip – (H) 8	CODEPLEX-2L01-8
CodePlex Adaptive Immune Chip – (M) 1	CODEPLEX-2L04-1
CodePlex Adaptive Immune Chip – (M) 4	CODEPLEX-2L04-4
CodePlex Adaptive Immune Chip – (M) 8	CODEPLEX-2L04-8
CodePlex Innate Immune Chip – (H) 1	CODEPLEX-2L03-1
CodePlex Innate Immune Chip – (H) 4	CODEPLEX-2L03-4
CodePlex Innate Immune Chip – (H) 8	CODEPLEX-2L03-8
CodePlex Inflammation Chip – (M) 1	CODEPLEX-2L10-1
CodePlex Inflammation Chip – (M) 4	CODEPLEX-2L10-4
CodePlex Inflammation Chip – (M) 8	CODEPLEX-2L10-8

PANELS - ISOSPARK	PRODUCT CODE
CodePlex Adaptive Immune Panel – (H) 1	S-PANEL-2L01-1
CodePlex Adaptive Immune Panel – (H) 4	S-PANEL-2L01-4
CodePlex Adaptive Immune Panel – (M) 1	S-PANEL-2L04-1
CodePlex Adaptive Immune Panel – (M) 4	S-PANEL-2L04-4
CodePlex Innate Immune Panel – (H) 1	S-PANEL-2L03-1
CodePlex Innate Immune Panel – (H) 4	S-PANEL-2L03-4
CodePlex Innate Immune Panel – (M) 1	S-PANEL-2L12-1
CodePlex Innate Immune Panel – (M) 4	S-PANEL-2L12-4
CodePlex Inflammation Panel – (M) 1	S-PANEL-2L10-1
CodePlex Inflammation Panel – (M) 4	S-PANEL-2L10-4

CODEPLEX CHIPS - ISOSPARK	PRODUCT CODE
Codeplex Loading Training Chip	CODEPLEX-2100-1
CodePlex Adaptive Immune Chip – (H) 1	CODEPLEX-2L01-1
CodePlex Adaptive Immune Chip – (H) 4	CODEPLEX-2L01-4
CodePlex Adaptive Immune Chip – (M) 1	CODEPLEX-2L04-1
CodePlex Adaptive Immune Chip – (M) 4	CODEPLEX-2L04-4
CodePlex Innate Immune Chip – (H) 1	CODEPLEX-2L03-1
CodePlex Innate Immune Chip – (H) 4	CODEPLEX-2L03-4
CodePlex Inflammation Chip – (M) 1	CODEPLEX-2L10-1
CodePlex Inflammation Chip – (M) 4	CODEPLEX-2L10-4

RESEARCH AREAS

- Cancer Immunology
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- Infectious Disease
- Inflammation
- Targeted Therapies

METEOR

The lab's entire workflow in one system! With just one-pipette action to load each sample, Meteor eliminates the need for the laborious proteomics workflow of traditional proteomic methods. With a sample volume of just 7.5uL per sample and the capacity to run 20 wells in triplicate on each chip, researchers can achieve unparalleled throughput. A single full run accommodates 80 assay wells in triplicate, ensuring a hands-free and streamlined operation.

Key Features

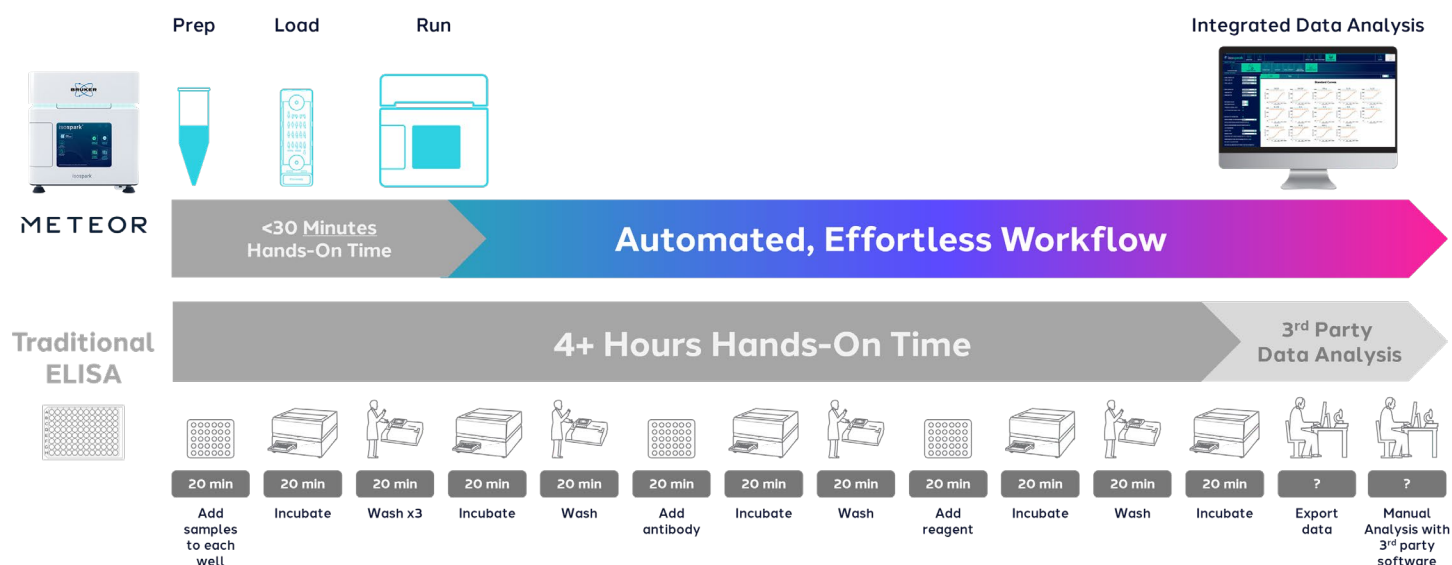
- Fully quantitative, in triplicate, leveraging onsite standards
- Ability to run full workflow with no training or expertise required
- Ability to run quantitative Meteor platform and IsoCode single-cell proteomics on the same IsoSpark

Human Adaptive Immune 1

GM-CSF, IFN- γ , IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-17A, TNF- α



More Insights with Fewer Steps



PANELS - ISOSPARK	PRODUCT CODE
Meteor Human Immune-1 Chips- 2	METEOR-5L01 -2 rev A
Meteor Human Immune-1 Chips- 4	METEOR-5L01 -4 rev A
Meteor Human Immune-1 Panel- 2	S-PANEL-5L01 -2 rev A
Meteor Human Immune-1 Panel- 4	S-PANEL-5L01 -4 rev A

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