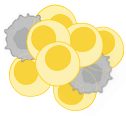


NULISaseq™ Immune 340 Panel

Broad enough to discover. Sensitive enough to trust.

Immune biology doesn't work in isolation. Every immune response is shaped by the interaction of dozens of pathways and profiling one pathway at a time may miss important biology. The NULISaseq™ Immune 340 Panel spans innate and adaptive immunity with simultaneous measurement of checkpoint biology, immune regulation, cytokines, chemokines, regulation, complement and cell-death pathways. With attomolar sensitivity and broad dynamic range, it resolves low-abundance mediators alongside high-abundance ones — delivering comprehensive immune profiling from a single sample.



Immuno-Oncology & Cancer Immunology

Measure the immune mechanisms that drive anti-tumor response and resistance.



Acute & Chronic Inflammation

Understand pathways that initiate, sustain, and resolve inflammation.



Autoimmunity & Tolerance

Characterize intolerance and chronic immune dysregulation.



Systemic Immunology & Aging

Capture immune resilience, aging, and systemic regulation.



Infectious Disease

Profile host immune responses to infection and disease severity.

High Resolution View of Immune Cell Function and Interactions

The NULISaseq Immune 340 Panel provides deep, biologically informed coverage of immune cell activation, regulation, communication, and response across health and disease.

Innate Immunity



Dendritic

CCL3 • CCL4 • CCL17 • CCL22 • CD80 • CD83 • CLEC4A • CSF2
FLT3LG • IL12B • IL12p70 • IL15 • IL23 • LAMP3 • TNFSF4 • TSLP



Macrophages

AXL • CCL2 • CD163 • CLEC4A • CSF1 • CSF1R • ICST7 • FTH1 • GAS6
GDF15 • IL1A • IL1B • IL6 • IL18 • IL34 • LILRB1 • LILRB2 • MERTK
MIF • IMMP12 • MPO • MRC1 • NAMPT • PROS1 • S100A9 S100A12
SIGLEC10 • SPP1 • TNF • TNFSF13 • TREM1 • TREM2



Natural Killer

CX3CL1 • GNLY • GZMA • GZMB • GZMK • IFNG • IL15 • IL15RA
IL18 • KLRK1 • MICA • MICB • NCR1 • IPRF1 • TNFSF10



Neutrophils

CXCL1 • CXCL2 • CXCL5 • CXCL6 • CXCL8 • DEFA5 • IIRAK4 • MMP8
MMP9 • MPO • TLR2 • TLR3 TNFSF10



Eosinophils

CCL11 • CCL24 • CCL26 • CHI3L1 • IL5 • IL5RA



Complement

C1Q • C5 • C3 • C5A • C3A • MAC

Adaptive Immunity

B Lymphocyte

CD27 • CD40 • CD40LG
CD70 • IL21 • MS4A1
TNFRSF13B • TNFRSF17
TNFSF13 • TNFSF13B

Cytotoxic T Lymphocyte (CTL)

CASP7 • CASP8 • CASP9
FAS • FASLG • GNLY • GSDMD
GSDME • GZMA • GZMB
GZMK • KLRK1 • MICA • MICB
NCR1 • PRF1 • RIPK3

Regulatory T Lymphocyte

CTLA4 • ICOS • IL1RN
IL2IL10 • IL10RB • IL27 • IL35
IL37 • PDCD1 • PDL1 • TGFB1
TGFB3

Helper T Response

Th1



Th2



Th17



Key Markers

CXCL10 • IFNA1; IFNA13 • IFNB1 • IFNG • IFNL1 • IFNL2; IFNL3
IL1B • IL1R1 • IL1R2 • IL1RL1 • IL1RN • IL2RA • IL2RB • IL6 • IL6R
IL12B • IL12RB1 • IL12p70 • IL18 • IL18BP • IL18R1 • IL22 IL23 • IL33
IL36A • IL36B • IL36G • JAK1 • LTA • STAT3 • TNF
TNFRSF1A • TNFRSF1B

AREG • CCL11 • CCL17 • CCL22 • CCL24 • CCL26 • CEACAM5
CHI3L1 • IL2 • IL4 • IL4R • IL5 • IL5RA • IL13 • IL13RA2 • IL19
IL20 • IL25 • IL31 • OSM • TSLP

CXCL1 • CXCL2 • CXCL3 • CXCL5 • CXCL6 • CXCL8 • GZMA • GZMB
IL17A • IL17A/IL17F • IL17B • IL17C • IL17D • IL17F • IL17RA
IL17RB • IL21 • IL22 • IL23 • LCN2 • MPO • S100A9 • S100A12

Purpose Built for Translational and Clinical Studies

Simultaneous Measurement

of checkpoints, cytotoxic effectors, chemokine networks, complement, and cell-death pathways.

Broad Dynamic Range

enables detection of both high-and low-abundance targets in a single assay.

Attomolar sensitivity

supports detection of low-abundance cytokines and chemokines at baseline and in response to therapeutic intervention.

Fully automated workflow

promotes reproducibility, scalability, and ease of use.

Robust detectability and compatibility

support at-home sampling for expanded time points and longitudinal monitoring.

NULISaseq™ Immune 340 Panel

Profile ~340 biomarkers across the immune landscape from just 25 µL

Cytokines				Chemokines	
BMP10	IL2	IL17F	LIF	CCL1	CCL24 (Eotaxin-2)
CLCF1	IL3	IL18	LTA	CCL2	CCL25
CNTF	IL4	IL19	MIF	CCL3	CCL26 (Eotaxin-3)
CSF1	IL5	IL20	OSM	CCL4	CCL27
CSF2	IL6	IL21	SPP1	CCL5	CCL28
CSF3	IL7	IL22	THPO	CCL7	CXCL1 (GRO-alpha)
CTF1	IL9	IL23	TNF	CCL8	CXCL2 (GRO-beta)
CX3CL1 (Fractalkine)	IL10	IL25 (IL-17E)	TNFSF4 (OX40L)	CCL11 (Eotaxin)	CXCL3
FLT3LG	IL11	IL27	TNFSF8	CCL13	CXCL5 (ENA-78)
IFNA1; IFNA13	IL12B (IL12p40)	IL31	TNFSF9 (4-1BBL)	CCL14	CXCL6
IFNA2	IL12p70	IL32	TNFSF10 (TRAIL)	CCL15	CXCL8 (IL-8)
IFNB1	IL13	IL33	TNFSF11 (RANKL)	CCL16	CXCL9
IFNG	IL15	IL34	TNFSF12 (TWEAK)	CCL17 (TARC)	CXCL10 (IP-10)
IFNL1	IL16	IL35	TNFSF13 (APRIL)	CCL18	CXCL11
IFNL2; IFNL3	IL17A	IL36A	TNFSF13B (BAFF)	CCL19	CXCL12
IFNW1	IL17A IL17F	IL36B	TNFSF14	CCL20	CXCL13
IL1A	IL17B	IL36G	TNFSF15 (TL1A)	CCL21	CXCL16
IL1B	IL17C	IL37	TNFSF18	CCL22 (MDC)	XCL1
IL1RN	IL17D	IL39	TSLP	CCL23	

Regulation/Checkpoint			Growth Factors		Receptors	
ALCAM	CD200R1	IDO1	ANGPT1 (ANG-1)	HGF	AGER (RAGE)	IL17RA (CD217)
ANXA1	CD226	IL4I1	ANGPT2 (ANG-2)	KITLG	AXL	IL17RB
BTLA	CD274 (PD-L1)	KLRK1 (NKG2D)	AREG	MDK	CD3E	IL18BP
CD6	CD276 (B7-H3)	LGALS9 (Galectin-9)	BDNF	NEFL (NFL)	CD4	IL18R1
CD24	CEACAM1	LILRB1	BMP7	NGF	CD40	KDR
CD27	CHI3L1	MICA	EGF	NTF3	CSF1R	LAG3
CD28	CLEC4A	MICB	EPO	PDGFA	CSF2RB	LILRB2
CD33	CST7	NECTIN2	FGF19	PDGFB	CSF3R	MERTK
CD40LG (CD40L)	CTLA4	NECTIN3	FGF2	PGF	CXADR	MRC1 (CD206)
CD46	FURIN	PDCD1 (PD-1)	FGF21	PROS1	EGFR	NCR1
CD47	HAVCR2 (TIM-3)	PDCD1LG2 (PD-L2)	FGF23	TGFB1	ERBB2	OSMR
CD70	ICOS	PVR	FST	TGFB3	ERBB4	SLAMF1
CD80	ICOSLG (B7-H2)	SIGLEC10	GAS6	TPO	FAS	TEK
CD83	IDO1	SIRPA	GDF15	VEGFA	FLT1	TLR2
CD86	IL4I1	TIGIT	GDF2 (BMP9)	VEGFC	FLT4 (VEGFR-3)	TLR3
CD93	KLRK1 (NKG2D)	VSTM1	GRN	VEGFD	HAVCR1	TNFRSF1A (TNFR1)
CD200	LGALS9 (Galectin-9)	VTCN1 (B7-H4)			IL1R1 (CD121a)	TNFRSF1B (TNFR2)

Cell Death		Other			Complement	
BCL2A1	GZMA	AGRP	IRAK4	NAMPT	C1Q	C5
BCL2L11	GZMB	ALPP	JAK1	PTX3	C3	C5A
CASP1	GZMK	BST2	KNG1	S100A12	C3A	MAC
CASP1-Cleaved (D297)	HDAC1	CALCA	LAMP3	S100A9		
CASP7	NCR3LG1	CD163	LCN2	SCG2		
CASP7-Cleaved (D198)	PARP1	CEACAM5 (CEA)	LDHA	SDC1		
CASP8	PRF1	CRP	LDHB	SELE (E-selectin)		
CASP8-Cleaved (D374)	RIPK3	CTSS	MMP1	SELP (P-selectin)		
CASP9	TP53	DEFA5	MMP2	SLURP1		
CASP9-Cleaved (D315)		FAM3C	MMP3	STAT3		
CASP9-Cleaved (D330)		FLRT2	MMP8	THBS2		
CDK4		FTH1	MMP9	TIMP1		
CDK6		GFAP	MMP10	TIMP2		
FASLG		GPC4	MMP12	VCAM1		
GNLY		HLA-DRA	MPO	VSNL1		
GSDMD		ICAM1	MS4A1 (CD20)	WNT16		
GSDME		IKBK	MUC16	WNT7A		

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