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# TRY IT

HMGB1

CAFs

Claudin18.2

M1/M2/TAM

Ferroptosis, Cuproptosis, PANoptosis

MyD88 L265P

M13 phage display

CAR-T,  $\gamma\delta$  T, CTL/NK



for more information  
please visit our website

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## About arigo

Have you noticed a **squirrel** hidden in the logo of arigo? arigo Biolaboratories uses the squirrel as a symbol and aim to provide quality antibodies, antibody duos/panels, and ELISA kits to facilitate scientific research. Our specialty **arigoPLEX**<sup>®</sup> product lines include **antibody panels** and **Multiplex ELISA kits**. Both are good for analyzing multiple key proteins or factors in popular research topics. **arigoPLEX**<sup>®</sup> offers an all-in-one solution to make research easy, efficient, and economic.

### Excellence

Offer smart solutions (Ab duos / panels / ELISA kits) to facilitate experiments and research.

### Nuts about antibodies

Only the best are offered.  
Only the smartest are accomplished.



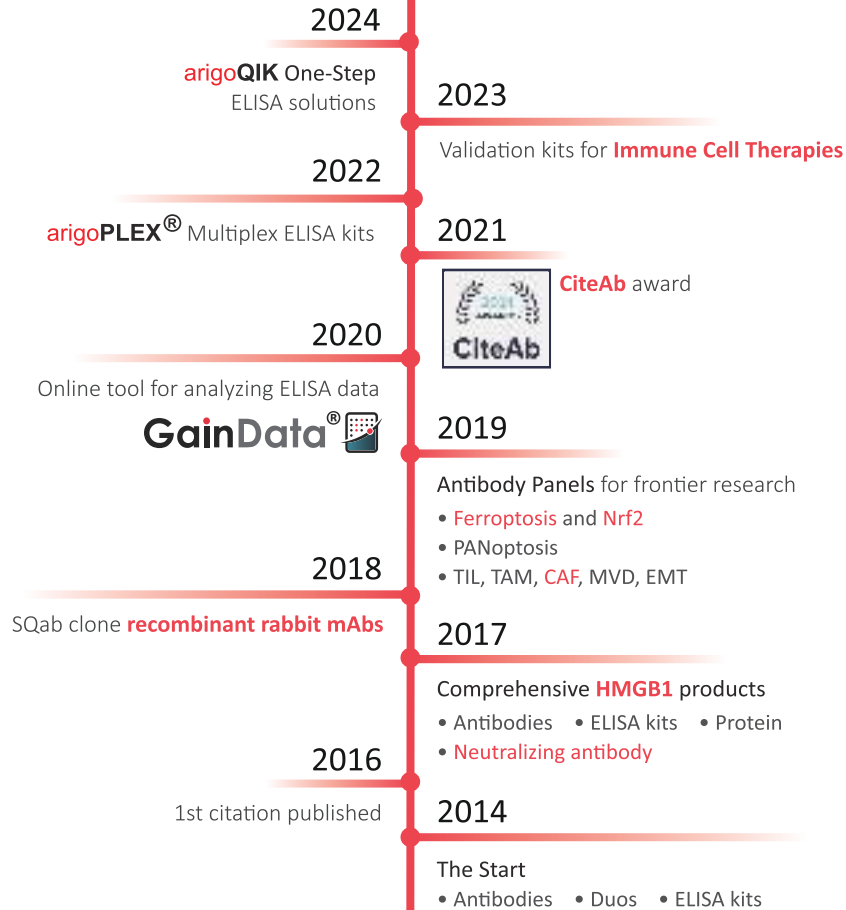
### Responsiveness

Follow the research frontier and bring out cutting edge research solutions.

### Quality

Extensively validate antibodies to provide specific and reliable products.

# Milestones





# arigoPLEX<sup>®</sup> Multiplex ELISA KIT



## Benefits

- Concurrent measurement of **4 or 8** factors
- High sensitivity at **pg/ml** ranges
- **Single** detection reagent
- Regular ELISA process
- Validated on serum, plasma, and cell culture supernatant

Learn more



What's the difference between **arigoPLEX<sup>®</sup>** and Luminex assay?

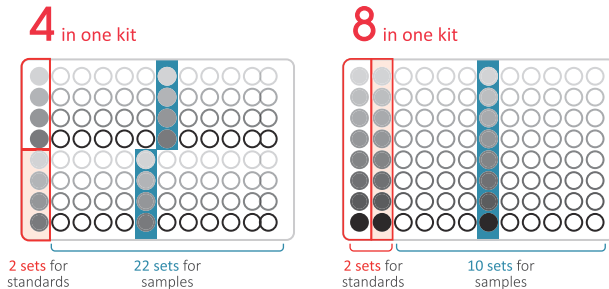
**A:** **arigoPLEX<sup>®</sup>** Multiplex ELISA kit is an ELISA-based immunoassay that allows for multiple detection of 4 or 8 factors simultaneously. Unlike Luminex which is useful to screen cytokines as much as possible, arigo's Multiplex ELISA kit is designed to validate **specific physiological effects** by measuring the key cytokines/factors such as inflammation and cell therapy-mediated cytotoxicity.

		Luminex
Equipment	ELISA reader	Specific instrument
Factors measured	Specific <b>4 or 8</b> factors	As much as possible
Ideal for	<b>Validation</b>	<b>Screening</b>



How many samples can be measured by **arigoPLEX<sup>®</sup>** Multiplex ELISA kit?

**A:** For 4-in-1 kit, two 12-well strips are available for each factor. One cytokine/factor is measured per well, and 4 wells as one set for one sample. Except 2 sets for standards, total 22 samples can be measured. For 8-in-1 kit, one 12-well strip is available for each factor and 8 wells as one set for each sample. Except 2 sets for standards, total 10 samples can be measured. **arigoPLEX<sup>®</sup>** Multiplex ELISA kit is ideal for small scale experiments in laboratory.



## Immune cell therapies

**Human CAR-T/CRS Multiplex ELISA Kit (ARG82969)**

IL-2, IL-6, IL-10, IFN- $\gamma$

**Human CTL/NK Activation Multiplex ELISA Kit (ARG83005)**

Perforin, Granzyme B, IFN- $\gamma$ , TNF- $\alpha$

**Human  $\gamma\delta$  T Cell Multiplex ELISA Kit (ARG83110)**

Granzyme B, IFN- $\gamma$ , IL-17, IL-8

## Angiogenesis

**Human Angiogenic Marker Multiplex ELISA Kit (ARG83510)**

VEGF, bFGF, HGF, IL-6

**Mouse Angiogenic Marker Multiplex ELISA Kit (ARG83471)**

VEGF, bFGF, PDGF-BB, IL-6

## Inflammation

### Human Pro-inflammatory Cytokine

Multiplex ELISA Kit (ARG82862)

IL-1 $\beta$ , IL-6, TNF- $\alpha$ , IFN- $\gamma$

### Human Inflammatory Cytokine

Multiplex ELISA Kit (ARG83509)

GM-CSF, MCP-1, IL-1 $\alpha$ , IL-1 $\beta$ , IL-6, IL-8, TNF- $\alpha$ , IFN- $\gamma$

### Mouse Pro-inflammatory Cytokine

Multiplex ELISA Kit (ARG82842)

IL-1 $\beta$ , IL-6, TNF- $\alpha$ , IFN- $\gamma$

### Rat Inflammatory Cytokine

Multiplex ELISA Kit (ARG83004)

IL-1 $\beta$ , IL-6, TNF- $\alpha$ , IL-10

## M1/M2 polarization

### Human M1/M2 Cytokine

Multiplex ELISA Kit (ARG83335)

IL-6, TNF- $\alpha$ , IL-4, IL-10

### Human M1/M2/MDSC Cytokine

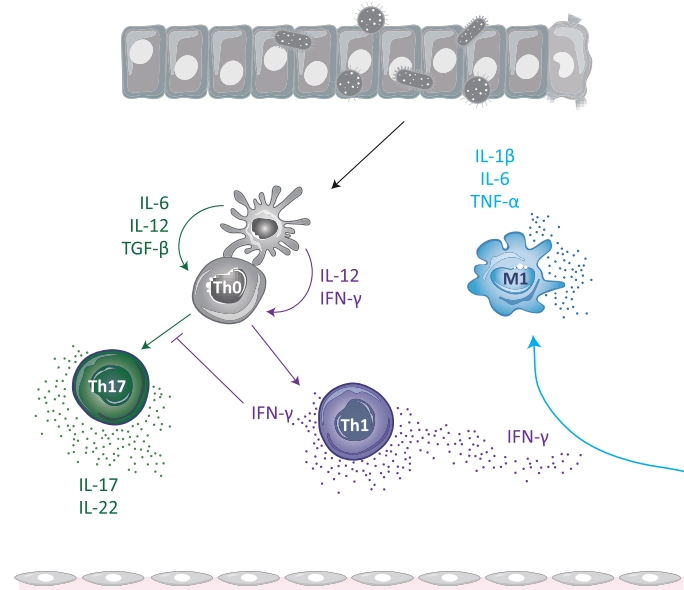
Multiplex ELISA Kit (ARG83474)

GM-CSF, MCP-1, IFN- $\gamma$ , TNF- $\alpha$ , IL-4, IL-6, IL-10, IL-12

### Mouse M1/M2 Cytokine

Multiplex ELISA Kit (ARG82913)

IL-6, TNF- $\alpha$ , IL-4, IL-10



### Selected citations

Human Pro-inflammatory Cytokine Multiplex ELISA Kit (ARG82862)

- Tsubouchi et al., (2024) Cell Rep Methods. 4(3):100737.

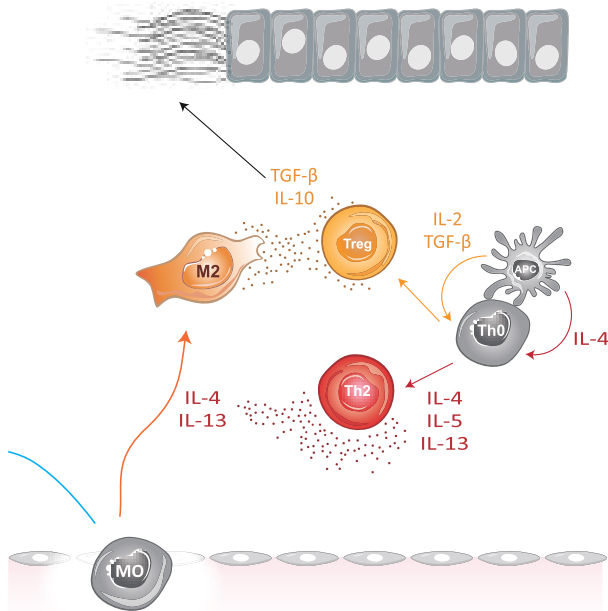
- Hwang et al., (2023) Korean J Physiol Pharmacol. 27(3):231-240.

Mouse Pro-inflammatory Cytokine Multiplex ELISA Kit (ARG82842)

- Kwak et al., (2022) Small. 18(15):e2200060.

Rat Inflammatory Cytokine Multiplex ELISA Kit (ARG83004)

- Pu et al., (2024) Biomed Pharmacother. 174:116490.



### Selected citations

Mouse M1/M2 Cytokines multiplex ELISA Kit (ARG82913)

- Hirayu and Takasu (2024) Int J Mol Sci. 25(2):1188.

- Kim et al., (2022) Biomaterials. 286:121578.

Human CTL/NK activation Multiplex ELISA Kit (ARG83005)

- Liu et al., (2023) Oncogene. 42(49):3648-3654.

## Fibrosis

### Human Fibrotic Marker

Multiplex ELISA Kit (ARG83353)

IL-6, TNF- $\alpha$ , TGF- $\beta$ 1, PDGF-BB

### Rat Fibrotic Marker

Multiplex ELISA Kit (ARG83356)

IL-6, TNF- $\alpha$ , TGF- $\beta$ 1, PDGF-BB

### Mouse Fibrotic Marker

Multiplex ELISA Kit (ARG83349)

IL-6, TNF- $\alpha$ , TGF- $\beta$ 1, PDGF-BB

## Th1/Th2/Th17/Treg balance

### Human Th1/Th2/Th17/Treg

Multiplex ELISA Kit (ARG83388)

IFN- $\gamma$ , IL-4, IL-17, IL-10

### Mouse Th1/Th2/Th17/Treg

Multiplex ELISA Kit (ARG82914)

IFN- $\gamma$ , IL-4, IL-17, IL-10

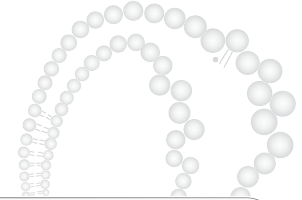
### Human Th1/Th2/Th17/Treg

Multiplex ELISA Kit (ARG83516)

IL-2, TNF- $\alpha$ , IFN- $\gamma$ , IL-4, IL-13,

IL-17, IL-22, IL-10

# Oxidative stress responses

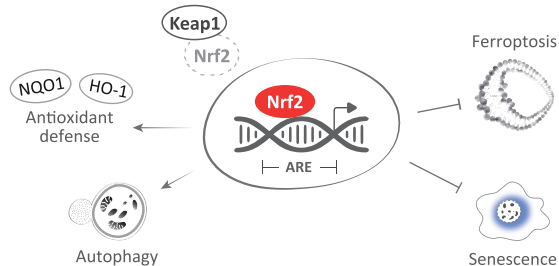


## Keap1-Nrf2-ARE Antibody Panel (ARG30345)

*Ideal to study the regulation of Nrf2-ARE pathway*

- Includes **IP-available Nrf2** antibody
- Includes Nrf2 regulator **Keap1** antibody
- Includes Nrf2 targets **NQO1** and **HO-1** antibodies
- Works on **human** and **mouse** samples

Component	Reactivity	Application
Keap1 antibody	Hu, Ms, Rat	IHC-P, WB
Nrf2 antibody	Hu, Ms	ICC/IF, IHC-P, IP, WB
NQO1 antibody	Hu, Ms, Rat	FACS, ICC/IF, IP, WB
HO-1 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, IP, WB

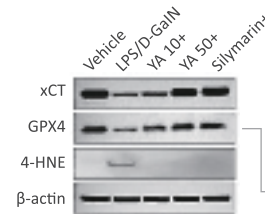


## Ferroptosis/Oxytosis Antibody Panel (ARG30337)

*Ideal to study ferroptosis in cancer cells and oxytosis in neuronal cells*

- Includes **lipid peroxidation marker** 4-HNE antibody
- Includes **ferroptosis key proteins** GPX4 and xCT antibodies
- Works on **human, mouse, and rat** samples

Component	Reactivity	Application
GPX4 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
xCT antibody	Hu, Ms, Rat	IP, WB
4-HNE antibody [12F7]	-	ELISA, ICC/IF, IHC-P, WB



### Selected citations

- Li et al., (2023) Ecotoxicol Environ Saf. 263:115309.
- Ryu et al., (2022) Antioxidants (Basel). 11(10):2052.
- Siregar et al., (2021) Mar Drugs. 19(11):614.

### Senescence Marker Antibody Panel (ARG30340)

*Ideal to detect senescence-associated cell cycle arrest*

- Includes antibodies for studying **p16<sup>INK4a</sup> - Rb** pathway
- Includes antibodies for studying **p53 - p21** pathway
- Works on **human, mouse, and rat** samples

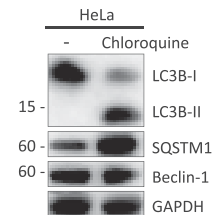
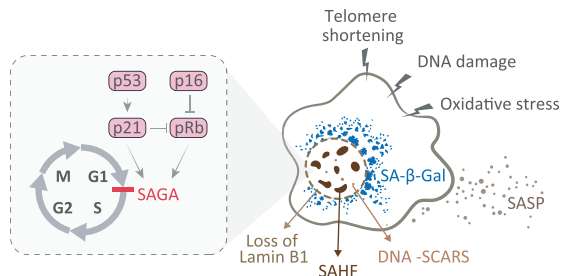
Component	Reactivity	Application
p16 <sup>INK4a</sup> antibody	Hu, Ms, Rat	ICC/IF, IP, WB
Rb pSer807 antibody	Hu, Ms, Rat	IHC-P, WB
p53 antibody [Pab1801]	Hu, Ms, Rat	ChIP, ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB
p21 antibody	Hu, Ms, Rat	ICC/IF, WB

### Autophagy Antibody Panel (ARG30321)

*Ideal to study the regulation of autophagy*

- Includes **autophagy markers** LC3B and SQSTM1 antibodies
- Includes **key regulator** Beclin-1 antibody
- Works on **human, mouse, and rat** samples

Component	Reactivity	Application
LC3B antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
SQSTM1 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
Beclin-1 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
GAPDH antibody [SQab1878]	Hu, Ms, Rat, and more	FACS, ICC/IF, IHC-P, IP, WB



# Pyroptosis & Inflammasomes

## Pyroptosis Antibody Panel (ARG30330)

*Ideal to detect canonical pyroptotic cell death in immune cells*

- Includes antibodies against **Caspase-1**, **GSDMD** and **IL-1 $\beta$**
- Detects both **pro-** and **cleaved** forms of the key proteins
- Works on **human** and **mouse** samples

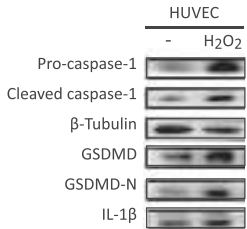
Component	Reactivity	Application
Caspase-1 antibody	Hu, Ms	ICC/IF, IHC-P, IP, WB
GSDMD antibody	Hu, Ms, Rat	ICC/IF, WB
IL-1 $\beta$ antibody [SQab1748]	Hu, Ms	ELISA, FACS, ICC/IF, IHC-P, WB
$\beta$ -Tubulin antibody [BT7R]	Hu, Ms, Rat, Ch, Mk, Rb	ELISA, ICC/IF, WB

## NLRP3 Inflammasome Antibody Panel (ARG30331)

*Ideal to study NLRP3 inflammasome in human and mouse cells*

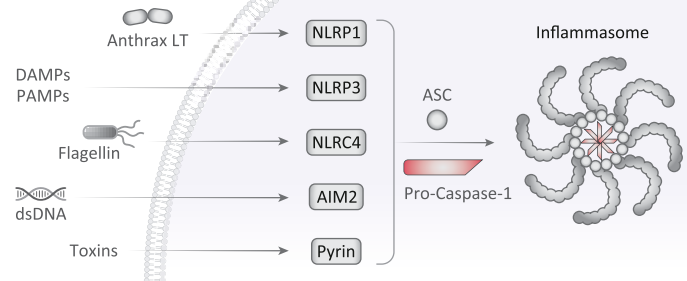
- Includes key components **NLRP3**, **ASC** and **Caspase-1** antibodies
- Detects both **pro-** and **cleaved** forms of Caspase-1
- Works on **human** and **mouse** samples

Component	Reactivity	Application
NLRP3 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
ASC antibody	Hu, Ms	WB
Caspase-1 antibody	Hu, Ms	ICC/IF, IHC-P, IP, WB
GAPDH antibody [6C5]	Hu, Ms, Rat, and more	ELISA, ICC/IF, IHC-Fr, WB



### Selected citations

- Pyroptosis Antibody Panel (ARG30330)**
- Yuan et al., (2022) Mol Med Rep. 25(6):214.
  - Zhao et al., (2021) Sci Rep. 11(1):20558.
- NLRP3 Inflammasome Antibody Panel (ARG30331)**
- Zhao et al., (2021) Sci Rep. 11(1):20558.



### NLRC4 Inflammasome Antibody Panel (ARG30332)

*Ideal to study NLRC4 inflammasome in human and mouse cells*

- Includes key components **NLRC4**, **ASC** and **Caspase-1** antibodies
- Detects both **pro-** and **cleaved** forms of Caspase-1
- Works on **human** and **mouse** samples

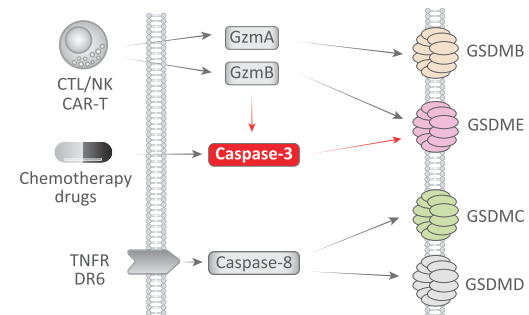
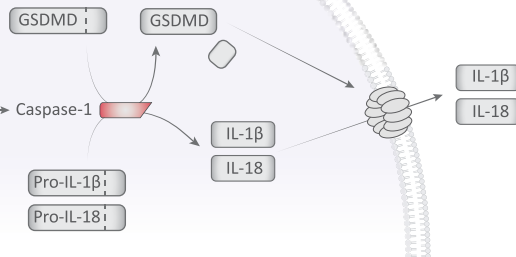
Component	Reactivity	Application
NLRC4 antibody	Hu, Ms	ICC/IF, IHC-P, WB
ASC antibody	Hu, Ms	WB
Caspase-1 antibody	Hu, Ms	ICC/IF, IHC-P, IP, WB
GAPDH antibody [6C5]	Hu, Ms, Rat, and more	ELISA, ICC/IF, IHC-Fr, WB

### GSDME-mediated Pyroptosis Antibody Panel (ARG30343)

*Ideal to study GSDME-mediated pyroptosis in tumor cells*

- Detects both **pro-** and **cleaved** forms of Caspase-3
- Detects both **pro-** and **cleaved** forms of GSDME
- Includes **HMGB1** antibody for detecting lytic cell death

Component	Reactivity	Application
Caspase-3 antibody	Hu, Ms, Rat	ICC/IF, IHC, IP, WB
GSDME antibody	Hu	IP, WB
HMGB1 antibody [SQab1711]	Hu, Ms, Rat	ELISA, FACS, ICC/IF, IHC-P, WB





# Necroptosis

## Necrosome Antibody Panel (ARG30344)

*Ideal to study necrosome assembly and necroptosis*

- Includes necrosome components **RIP1**, **RIP3**, and **MLKL** antibodies
- Works on **human** and **mouse** samples

Component	Reactivity	Application
RIP1 antibody	Hu, Ms, Rat	ICC/IF, WB
RIP3 antibody	Hu, Ms, Rat	ELISA, ICC/IF, IHC-Fr, IHC-P, IP, WB
MLKL antibody	Hu, Ms	IHC-P, WB

## Mouse Ripoptosome Antibody Panel (ARG30350)

*Ideal to distinguish apoptosis and necroptosis*

- Includes ripoptosome components **RIP1** and **Caspase-8** antibodies
- Detects necroptosis by **p-RIP1** and **p-RIP3** antibodies
- Detects both **pro-** and **cleaved** forms of **Caspase-8**

Component	Reactivity	Application
Caspase-8 antibody	Hu, Ms, Rat	IHC-P, WB
RIP1 antibody [SQab22276]	Ms	IHC-P, WB
RIP1 pSer166 antibody [YJY-1-5]	Hu, Ms, Rat	ICC/IF, IHC-Fr, IHC-P, IP, WB
RIP3 pSer232 antibody	Ms	WB

### Highlight

#### RIP1 pSer166 antibody [YJY-1-5] (ARG66476)

- **Rabbit mAb**
- **Reactivity:** Hu, Ms, Rat
- **Application:** ICC/IF, IHC-Fr, IHC-P, IP, WB



#### Selected citations

- Matsuoka and Tsujimoto (2023) Sci Rep. 13(1):20423.
- Wu et al., (2023) PeerJ. 11:e15551.
- Fan et al., (2022) Front Pharmacol. 13:884821.
- Wang et al., (2021) Nat Commun. 12(1):4826.
- Tao et al., (2020) Cell Death Differ. 28(4):1418-1433.

# Cuproptosis

## Cuproptosis - Proteotoxic Stress Antibody Panel (ARG30354)

*Ideal to examine the proteotoxic stress in cuproptosis process*

- Includes **lipoylated proteins** DLAT and DLST antibodies
- Include **proteotoxic stress marker** HSP70 antibody
- Works on **human** and **mouse** samples

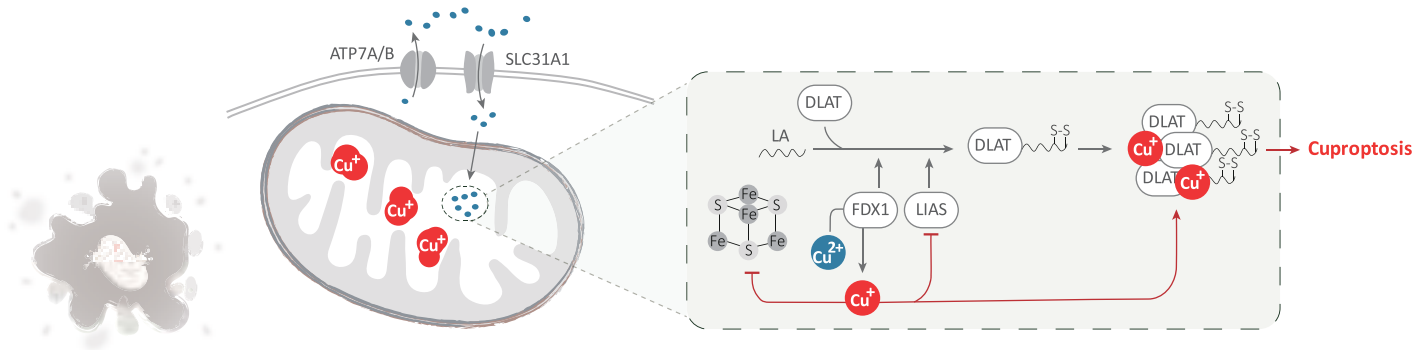
Component	Reactivity	Application
DLAT antibody	Hu, Ms	ICC/IF, IP, WB
DLST antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
HSP70 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB

## Fe-S Cluster Antibody Panel (ARG30355)

*Ideal to evaluate the loss of Fe-S clusters in cuproptosis process*

- Includes Fe-S clusters **FDX1**, **LIAS**, **ACO2**, and **POLD1** antibodies
- Works on **human** samples

Component	Reactivity	Application
FDX1 antibody	Hu	WB
LIAS antibody	Hu, Ms	WB
ACO2 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, IP, WB
POLD1 antibody	Hu, Ms, Rat	ICC/IF, WB



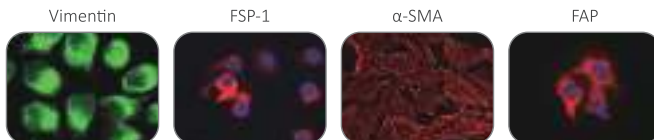
# Tumor microenvironment

## CAF Marker Antibody Panel (ARG30347)

*Ideal to examine the heterogeneity of cancer-associated fibroblasts (CAFs)*

- Includes **mesenchymal** marker Vimentin antibody
- Includes **fibroblast** marker FSP-1 antibody
- Includes **myofibroblast** marker  $\alpha$ -SMA antibody
- Includes **active fibroblast** marker FAP antibody
- Works on **human** and **mouse** samples

Component	Reactivity	Application
Vimentin antibody [SQab1721]	Hu, Ms	FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB
FSP-1 antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB
$\alpha$ -SMA antibody [SQab18108]	Hu, Ms, Rat, and more	FACS, ICC/IF, IHC-Fr, IHC-P, WB
FAP antibody	Hu, Ms, Rat	ICC/IF, IHC-P, WB

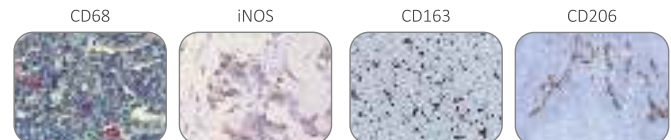


## M1/M2/TAM Marker Antibody Panel (ARG30333)

*Ideal to study macrophage polarization and identify M1, M2, and tumor-associated macrophages (TAMs)*

- Includes **M0** marker CD68 antibody
- Includes **M1** marker iNOS antibody
- Includes **M2** markers CD163 and CD206 antibodies
- Good for **double staining**

Component	Reactivity	Application
CD68 antibody [KP1]	Hu, Rat	FACS, ICC/IF, IHC-P, WB
iNOS antibody	Hu, Ms, Rat	ICC/IF, IHC-Fr, IHC-P, IP, WB
CD163 antibody [SQab19148]	Hu	IHC-P
CD206 antibody [15-2]	Hu, Ms	FACS, ICC/IF, IHC-Fr, IP, WB



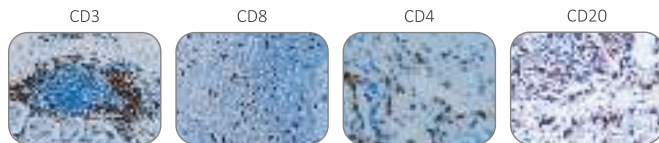


### Tumor-infiltrating Lymphocyte Antibody Panel (ARG30334)

*Ideal to identify the lymphocytes in tumor microenvironment*

- Includes **general T cell** marker CD3 antibody
- Includes **cytotoxic T cell** marker CD8 antibody
- Includes **regulatory T cell** marker CD4 antibody
- Includes **B cell** marker CD20 antibody
- Outstanding IHC performance

Component	Reactivity	Application
CD3 antibody [SQab1713]	Hu	FACS, ICC/IF, IHC-P, IP, WB
CD8 antibody [SQab19146]	Hu	IHC-P
CD4 antibody [SQab1714]	Hu	FACS, IHC-P, IP, WB
CD20 antibody [SQab1719]	Hu	FACS, ICC/IF, IHC-P, IP

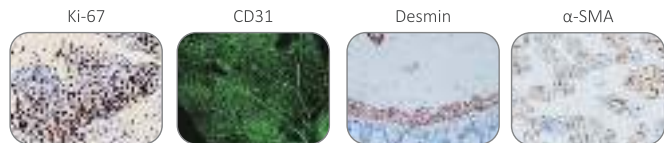


### Microvascular Density Antibody Panel (ARG30327)

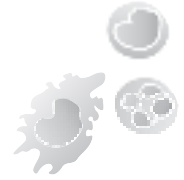
*Ideal to examine angiogenesis in tumor tissues and xenograft*

- Includes **proliferation** marker Ki-67 antibody
- Includes **endothelial cell** marker CD31 antibody
- Includes **pericyte** marker Desmin antibody
- Includes **smooth muscle cell** marker  $\alpha$ -SMA antibody
- Outstanding IHC performance

Component	Reactivity	Application
Ki-67 antibody [SQab1897]	Hu	IHC-P
CD31 antibody	Hu, Ms, Rat, Pig	ICC/IF, IHC-Fr, IHC-P, WB
Desmin antibody [SQab1722]	Hu, Ms, Rat	IHC-P, WB
$\alpha$ -SMA antibody [SQab18108]	Hu, Ms, Rat, and more	FACS, ICC/IF, IHC-Fr, IHC-P, WB



# Inflammation & Fibrosis

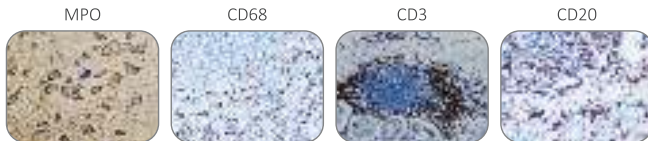


## Human Inflammatory Cell Antibody Panel (ARG30325)

*Ideal to stain inflammatory cells in human tissues*

- Includes **neutrophil** marker MPO antibody
- Includes **macrophage** marker CD68 antibody
- Includes **T cell** marker CD3 antibody
- Includes **B cell** marker CD20 antibody
- Outstanding IHC performance

Component	Reactivity	Application
MPO antibody	Hu, Ms, Rat	IHC-P, WB
CD68 antibody [SQab1742]	Hu	FACS, IHC-Fr, IHC-P
CD3 antibody [SQab1713]	Hu	FACS, ICC/IF, IHC-P, IP, WB
CD20 antibody [SQab1719]	Hu	FACS, ICC/IF, IHC-P, IP

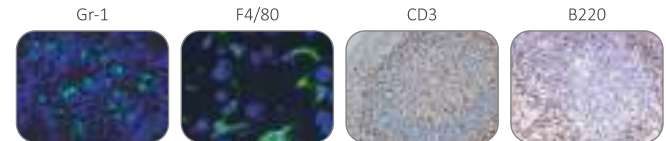


## Mouse Inflammatory Cell Antibody Panel (ARG30326)

*Ideal to stain inflammatory cells in mouse tissues*

- Includes **neutrophil** marker Gr-1 antibody
- Includes **macrophage** marker F4/80 antibody
- Includes **T cell** marker CD3 antibody
- Includes **B cell** marker B220 antibody
- All rat mAbs for eliminating mouse-on-mouse background

Component	Reactivity	Application
Gr-1 antibody [RB6-8C5]	Ms	FACS, IHC-Fr, IHC-P, IP
F4/80 antibody [Cl:A3-1]	Ms, Rat	FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB
CD3 antibody [CD3-12]	Hu, Ms, more	FACS, ICC/IF, IHC-Fr, IHC-P, WB
B220 antibody [RA3-6B2]	Hu, Ms, Cat	FACS, ICC/IF, IHC-Fr, IHC-P, IP





### Neuroinflammation Antibody Panel (ARG30324)

*Ideal to study neuroinflammation in human and rodent samples*

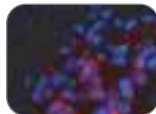
- Includes **microglial markers** Iba1 and CD68 antibodies
- Includes **astrocyte marker** GFAP antibody
- Good for **triple staining**
- Works on **human** and **rat** samples

Component	Reactivity	Application	Host
Iba1 antibody	Hu, Ms, Rat	ICC/IF, IHC-Fr, WB	Rabbit
CD68 antibody [KP1]	Hu, Rat	FACS, ICC/IF, IHC-P, WB	Mouse
GFAP antibody	Hu, Ms, Rat, and more	ELISA, FACS, ICC/IF, IHC-P, IHC-Fr, WB	Chicken

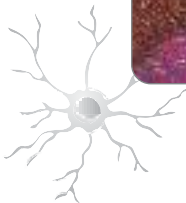
Iba1



CD68



GFAP



### Myofibroblast / Fibrosis Antibody Panel (ARG30346)

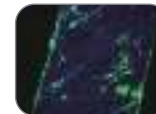
*Ideal to investigate the role of myofibroblasts in wound healing and fibrosis*

- Includes **myofibroblast marker**  $\alpha$ -SMA antibody
- Includes **fibrotic proteins** Collagen I and Fibronectin antibodies
- Good for **triple staining**
- Works on **human, mouse, and rat** samples

Component	Reactivity	Application	Host
$\alpha$ -SMA antibody [SQab18108]	Hu, Ms, Rat, and more	FACS, ICC/IF, IHC-Fr, IHC-P, WB	Rabbit
Collagen I antibody	Hu, Ms, Rat, and more	ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB	Goat
Fibronectin antibody	Hu, Ms, Rat	IHC-P, WB	Mouse

 $\alpha$ -SMA

Collagen I



Fibronectin



# Total solutions for HMGB1 research

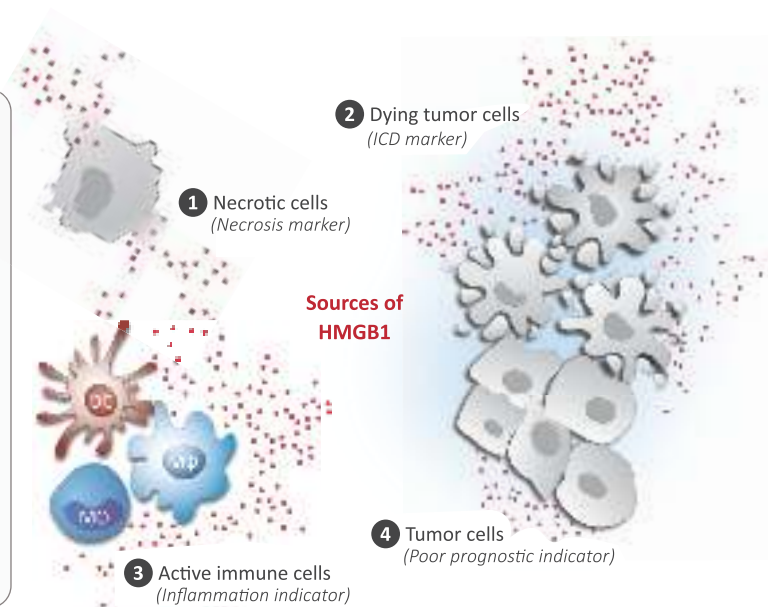
## Quantification

### HMGB1 ELISA Kits

#### Benefits

- HMGB1-specific
- Good for plasma, serum, cell culture supernatant, and cell/tissue lysates
- Works on **human, mouse, and rat** samples

Cat. No.	Reactivity			Sample			
	Hu	Ms	Rat	Plasma	Serum	Culture Sup.	Lysates
ARG81185	•			•		•	
ARG81310		•	•	•		•	•
ARG81351	•	•	•		•		



## Selected citations

### Mouse/Rat HMGB1 ELISA Kit (ARG81310)

- Molina-López et al., (2024) Nat Commun. 15(1):1096.
- Zhang et al., (2024) Nat Commun. 15(1):1118.
- Nikolos et al., (2022) Nat Commun. 13(1):1487.
- Kuai et al. (2022) Acta Pharm Sin B. 12(2):967-981.
- Wang et al., (2021) Nano Today. 37:101064.
- Liang et al., (2021) Chem Eng J. 425:131451.

### Human HMGB1 ELISA Kit (ARG81185)

- Huang et al., (2024) Int Immunopharmacol. 127:111397.
- Yasuda et al., (2023) J Autoimmun. 142:103149.
- Hurtado-Navarro et al., (2023) Cell Rep Med. 4(12):101329.
- Jung et al., (2023) Biomaterials. 298:122127.
- Li et al., (2022) J Exp Clin Cancer Res. 41(1):74.
- Volchuk et al., (2020) Nat Commun. 11(1):4561.

### Serum HMGB1 ELISA Kit (ARG81351)

- Liu et al., (2024) Adv Sci (Weinh). 11(3):e2305217.
- Luo et al., (2023) ACS Nano. 17(10):8966-8979.
- Yuan et al., (2023) Bioeng Transl Med. 8(6):e10576.
- Huang et al. (2022) Nano Today. 44:101500.
- Luo et al., (2022) J Nanobiotechnology. 20(1):228.
- Ogura et al., (2022) J Dermatol. 49(1):124-132.



## Neutralization

### HMGB1 Neutralizing antibody [SQab20175] (ARG66714)

**Benefits**

- *In vitro* & *in vivo* neutralizing effects
- Low endotoxin
- Works on **human** and **mouse** cells
- Good for ELISA, FACS, Neut, WB

**Selected citations**

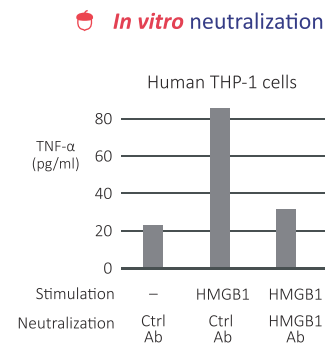
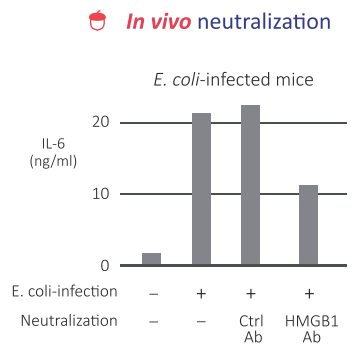
- Yin et al., (2024) Adv Mater. 36(13):e2309839.
- Zuo et al., (2023) Nat Commun. 14(1):5456.
- You et al., (2023) Virus Res. 338:199240.
- Xiao et al., (2023) Cell Tissue Res. 391(1):43-54.
- Wang et al., (2022) Front Immunol. 13:767630.
- Kam et al., (2021) Angiogenesis. 2021 Oct 6;1-23.

## Detection

### HMGB1 antibody [SQab1711] (ARG65863)

**Benefits**

- HMGB1-specific
- Good for ELISA, FACS, ICC/IF, IHC-P, WB
- Works on **human, mouse, and rat** samples

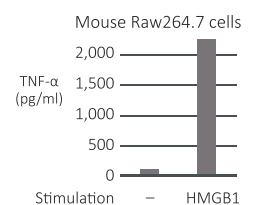
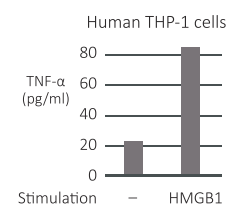


## Stimulation

### HMGB1 active protein (ARG70220)

**Benefits**

- Low endotoxin
- Works on **human** and **mouse** cells







# SQab Clone Recombinant Rabbit mAbs

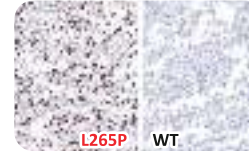
## Benefits

- Proprietary recombinant antibody technology
- Excellent specificity and sensitivity
- High consistency and reproducibility
- Outstanding IHC performance

**Claudin 18.2 antibody**  
[SQab22278] (ARG67014)



**MyD88 L265P antibody**  
[SQab30311] (ARG67041)



**PD-L1 antibody**  
[SQab1716] (ARG65862)



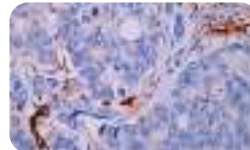
**AR antibody**  
[SQab1729] (ARG66207)



**Brachyury antibody**  
[SQab22270] (ARG66940)



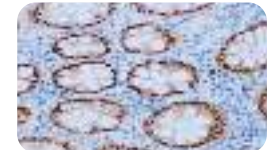
**CD31 antibody**  
[SQab18116] (ARG66342)



**CD68 antibody**  
[SQab1742] (ARG66253)



**CDX2 antibody**  
[SQab1733] (ARG66244)



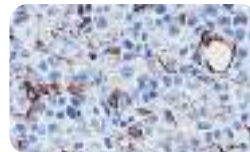
**Cytokeratin HMW antibody**  
[SQab20224] (ARG66811)



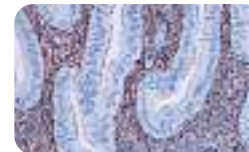
**E-Cadherin antibody**  
[SQab1717] (ARG66195)



**Podoplanin antibody**  
[SQab19158] (ARG66673)



**α-SMA antibody**  
[SQab1735] (ARG66246)



**Vimentin antibody**  
[SQab1721] (ARG66199)



## ▶ Collagen antibodies

### Benefits

- Pre-adsorbed goat pAbs
- Good for IHC-Fr, IHC-P, ICC, WB, and more
- Works on patients and models with **connective tissue disorders**
- Ideal for triple immunofluorescence staining

### Collagen I antibody (ARG21965)

**Reactivity:** Hu, Ms, Rat, Bv, Dog, Gpig, Hm, Pig, Rb, Sh  
**Application:** ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB



### Collagen II antibody (ARG20787)

**Reactivity:** Hu, Ms, Rat, Bv, Ch, Pig, Rb, Sh  
**Application:** ELISA, ICC/IF, IHC-Fr, IHC-P, IP, WB



### Collagen III antibody (ARG20786)

**Reactivity:** Hu, Ms, Rat, Bv, Ch, Dog, Hm, Pig, Rb  
**Application:** ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, WB



### Collagen IV antibody (ARG21968)

**Reactivity:** Hu, Ms, Rat, Bv  
**Application:** ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB



## ▶ tdTomato & mCherry antibodies

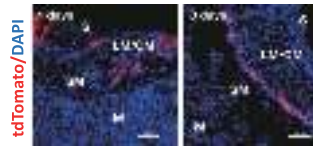
### Benefits

- Goat pAbs
- Good for ICC/IF, IHC-Fr, IHC-P, and WB
- Excellent for enhancing red fluorescence in tissue sections
- Ideal for triple immunofluorescence staining



### tdTomato antibody (ARG55724)

**Application:** ICC/IF, IHC-Fr, IHC-P, WB

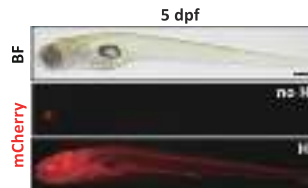


### Selected citations

- Ribeiro and Crossan (2023) Nucleic Acids Res. 51(10):4791-4813.
- Tang et al., (2023) Sci Adv. 9(34):eadh9570.
- Fan et al., (2023) Cell Mol Gastroenterol Hepatol. 15(2):511-531.

### mCherry antibody (ARG55723)

**Application:** ICC/IF, IHC-Fr, IHC-P, WB



### Selected citations

- Song et al., (2023) NPJ Regen Med. 8(1):20.
- Wei et al., (2023) Cell Rep. 42(7):112660.
- Cai et al., (2023) Cell Rep. 42(9):113028.
- Zhang et al., (2022) Cell Rep. 39(1):110596.

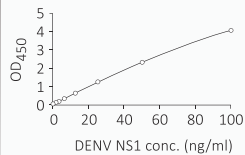
# Dengue Virus antibodies



## Dengue Virus NS1 ELISA Kit (ARG81357)

### Benefits

- **Early:** NS1 is detectable from day 1-9 post onset
- **Easy:** Regular ELISA process
- **Fast:** ~2.5 hr assay time
- **Flexible:** Good for plasma, serum, and cell culture supernatant
- **Reliable:** Detection of 4 DENV serotypes
- **Specific:** No cross-reactivity with Zika virus



### Selected citations

- Sittthisuwannakul et al., (2024) Biosens Bioelectron. 254:116218.
- Wei et al., (2023) Microbiol Spectr. 11(1):e0358622.
- Pan et al., (2021) PLoS Pathog. 17(7):e1008603.
- Lin et al., (2019) EBioMedicine. 48:425-441.
- Sanaki et al., (2019) FASEB J. 33(12):13866-13881.

## Dengue Virus NS1 antibody [SQab1501] (ARG65660)

### Mouse mAb

ELISA, FACS, ICC/IF, IHC-P, WB



### Selected citations

- Pan et al., (2023) Signal Transduct Target Ther. 8(1):194.
- Shi et al., (2023) Pharmaceuticals. 16(2):263.
- Li et al., (2021) Front Immunol. 12:744880.
- Pan et al., (2021) PLoS Pathog. 17(7):e1008603.
- Su et al., (2020) FASEB J. 34(6):7283-7294.

DENV	Reactivity	Application	Cat. No.
NS1 antibody [SQab1501]	4 serotypes	ELISA, ICC/IF, WB	ARG65660
NS3 antibody [SQab19171]	DENV2	ELISA, ICC/IF, WB	ARG66682
NS4B antibody [SQab19172]	DENV2/3	ELISA, ICC/IF, WB	ARG66683
NS5 antibody [SQab19173]	DENV1/2/4	ELISA, ICC/IF, WB	ARG66684

DENV	Reactivity	Application	Cat. No.
E protein antibody [SQab19170]	DENV2	ELISA, ICC/IF, WB	ARG66681
prM antibody [SQab19168]	4 serotypes	ELISA, ICC/IF, WB	ARG66679
M protein antibody [SQab19169]	DENV1/2/3	ELISA, ICC/IF, WB	ARG66680
C protein antibody [SQab19167]	DENV2/4	ELISA, ICC/IF, WB	ARG66678

## ▶ Zika Virus antibodies

### NS1 antibody [SQab1609] (ARG65781)

#### Mouse IgG1

ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, WB

#### Selected citations

- Lu et al., (2023) J Virol. 97(5):e0198222.
- Borges-Vélez et al., (2022) Cells. 11(22):3627.



### NS1 antibody [SQab1610] (ARG65782)

#### Mouse IgG2a

ELISA, FACS, ICC/IF, WB

#### Selected citations

- Lee et al., (2017) Anal Chem. 89(23):12743-8.



### Envelope protein antibody [SQab1749] (ARG66286)

#### Mouse IgG1

ELISA, FACS, ICC/IF, IHC-P, WB

#### Selected citations

- Zhou et al., (2020) Virus Res. 278:197882.
- Chen et al., (2020) J Exp Med. 217(9): e20192152.

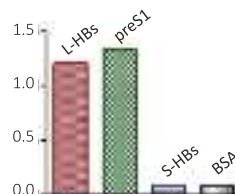


## ▶ Hepatitis B Virus antibodies

### HBV preS1 antibody [SQab1506] (ARG65665)

#### Mouse mAb

ELISA, ICC/IF, IHC-P, WB



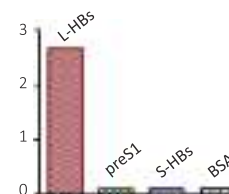
#### Selected citations

- Tu et al., (2019) Dig Dis Sci. 64(11):3203-3214.

### HBV preS2 antibody [SQab1507] (ARG65666)

#### Mouse mAb

ELISA, ICC/IF, IHC-P, WB



#### Selected citations

- Yato et al., (2023) Virus Res. 323:199014.
- Liu et al., (2018) PLoS Pathog. 14(5):e1007085.

HBV	Application	Cat. No.
HBsAg antibody [SQab1504]	ELISA, ICC/IF, IHC-P	ARG65663
HBV preS1 antibody [SQab1506]	ELISA, ICC/IF, IHC-P, WB	ARG65665
HBV preS2 antibody [SQab1507]	ELISA, ICC/IF, IHC-P, WB	ARG65666
HBeAg antibody [HBe3]	ELISA	ARG10305
HbCag antibody [H6F5]	ELISA, WB	ARG10303
HBxAg antibody [3F6-G10]	ELISA, IHC-Fr, IHC-P, WB	ARG22716

# Anti-Human immunoglobulins

- **Isotype/subtype specific**  
IgA, IgD, IgG and subtypes, IgM, IgE, and the pre-adsorbed ones
- **Immunoglobulin fragment specific**  
Hinge, F(ab')<sub>2</sub>, Fd, FLC, pFc', Fab, Fc, and light chains
- **Unconjugated and conjugates available**  
HRP, AP, Biotin, beta-Gal, FITC, PE, TRITC, and Texas Red/APC/Cy5
- **Multiple host species**  
Goat, mouse, and rabbit

## Pre-adsorbed Goat pAbs

	Unconjugated	HRP	AP	Biotin	FITC	PE	TRITC	Texas Red
<b>IgA</b>	ARG21909	ARG21911	ARG21674	ARG21912	ARG21910	ARG21676	ARG21673	ARG21675
<b>IgA, F(ab')<sub>2</sub></b>	ARG21913			ARG21915	ARG21914			
<b>IgD</b>	ARG21657	ARG21661	ARG21660	ARG21663	ARG21658	ARG21664	ARG21659	ARG21662
<b>IgD, F(ab')<sub>2</sub></b>	ARG21665			ARG21667	ARG21666			
<b>IgG</b>	ARG21906	ARG23887	ARG21669	ARG21905	ARG20568	ARG23888	ARG21668	ARG21671
<b>IgG, F(ab')<sub>2</sub></b>	ARG21908	ARG22371	ARG21672	ARG21907				
<b>IgG, Fd</b>	ARG24054	ARG24056	ARG24055		ARG24057			
<b>IgG, Fc</b>	ARG24073	ARG23874	ARG24074	ARG24081	ARG24076	ARG24082		
<b>IgM</b>	ARG21644	ARG21648	ARG21647	ARG21650	ARG21645	ARG21651	ARG21646	ARG21649
<b>IgM, F(ab')<sub>2</sub></b>	ARG21652	ARG21654		ARG21655	ARG21653			
<b>k light chain</b>	ARG24085	ARG21958	ARG24048	ARG24062	ARG23962	ARG24063	ARG24059	ARG24061
<b>λ light chain</b>	ARG23892	ARG23893	ARG24065	ARG24067	ARG23965	ARG24068	ARG24064	ARG24066
<b>IgE</b>	ARG24030	ARG24034	ARG24031	ARG24032	ARG24033			
<b>IgA/IgG/IgM</b>	ARG23886	ARG23877	ARG23881	ARG23884	ARG23879	ARG23885	ARG23880	ARG23883

## Mouse mAbs

	Unconjugated	HRP	AP	Biotin	FITC	PE	APC / Cy5
<b>IgA1, Fc</b>	ARG21838	ARG21841	ARG21840	ARG21842	ARG21839	ARG21843	
<b>IgA2, Fc</b>	ARG21844	ARG21847	ARG21846	ARG21848	ARG21845	ARG21849	
<b>IgD</b>	ARG21807	ARG21810	ARG21809	ARG21811	ARG21808	ARG21812	ARG42307
<b>IgE</b>	ARG65416				ARG63031	ARG53948	
<b>IgE, Fc</b>	ARG21850	ARG21853	ARG21852	ARG21854	ARG21851		
<b>IgG</b>	ARG66786						
<b>IgG, Fab</b>	ARG63035					ARG53949	
<b>IgG, Fc</b>	ARG23938	ARG23933	ARG21816	ARG21817	ARG23934	ARG21818	ARG23935
<b>IgG1, Fc</b>	ARG21949	ARG21950	ARG21825	ARG21827		ARG21826	
<b>IgG1, Hinge</b>	ARG21819	ARG21822	ARG21821	ARG21823	ARG21820	ARG21824	
<b>IgG2, Fc</b>	ARG21954	ARG21952	ARG21830	ARG21882	ARG21955	ARG21831	
<b>IgG2, Fd</b>	ARG21832	ARG21835	ARG21834	ARG21836	ARG21833	ARG21837	
<b>IgG3, Hinge</b>	ARG21870	ARG21873	ARG21872	ARG21874	ARG21871	ARG21875	
<b>IgG4</b>	ARG10224						
<b>IgG4, Fc</b>	ARG21864	ARG21867	ARG21866	ARG21868	ARG21865	ARG21869	
<b>IgG4, pFc'</b>	ARG21858	ARG21861	ARG21860	ARG21862	ARG21859	ARG21863	
<b>IgM</b>	ARG21801	ARG21804	ARG21803	ARG21805	ARG21802	ARG21806	
<b>IgM, Fc</b>	ARG63040						
<b>k light chain</b>	ARG42387			ARG42395	ARG42397	ARG42399	ARG42394
<b>k FLC</b>	ARG10227						
<b>λ light chain</b>	ARG63053	ARG21856	ARG21855	ARG21857	ARG63054	ARG53955	ARG53954

## ELISA Kits

Product (Cat. No.)	Sensitivity
Human IgA ELISA Kit (ARG81182)	0.78 ng/ml
Human IgD ELISA Kit (ARG81153)	0.03 ng/ml
Human IgE ELISA Kit (ARG80140)	0.2 ng/ml

Product (Cat. No.)	Sensitivity
Human IgG ELISA Kit (ARG80135)	0.4 ng/ml
Human IgG4 ELISA Kit (ARG80175)	8 ng/ml
Human IgM ELISA Kit (ARG80947)	0.16 ng/ml

## Rabbit mAbs

**Human IgA antibody**  
[SQab20241] ([ARG66829](#))



**Human IgD antibody**  
[SQab21243] ([ARG66875](#))



**Human IgG antibody**  
[E20-V] ([ARG10569](#))

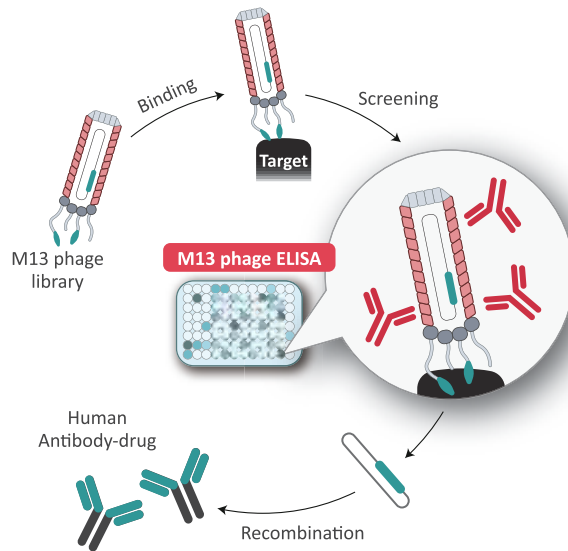


**Human IgM antibody**  
[SQab21244] ([ARG66876](#))

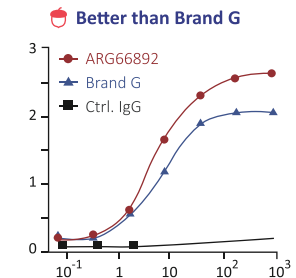
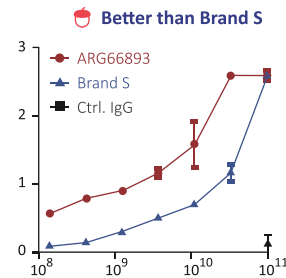


# M13 antibodies

M13 phage display is a powerful tool for the development of therapeutic antibodies. A specific and sensitive M13 antibody is the key to make drug discovery efficiently. **arigo** offers specific and sensitive M13 antibodies which show a better performance compare with competitors' in ELISA. It is the best solution to facilitate the drug screening by M13 phage display.



## M13 g8p antibody [SQab21250] (ARG66892, ARG66893)



Product	Application	Cat. No.
M13 g8p antibody [SQab21250]	ELISA, FACS	ARG66892
M13 g8p antibody [SQab21250] (HRP)	ELISA	ARG66893
M13 g3p antibody [E1]	ELISA, FACS, IHC-Fr	ARG23605
M13 g3p antibody [E1] (Biotin)	ELISA, FACS	ARG23868

# ▶ Active Proteins



- Multiple expression systems
- Diverse tag or fusion choices
- High purity & low endotoxin

## Chemokines

	Human	Mouse
<b>IL-8</b>	ARG70031	
<b>CCL2/ MCP-1</b>	ARG70420	ARG70432
<b>CCL3/ MIP-1α</b>	ARG70476	ARG70433
<b>CCL4/ MIP-1β</b>	ARG70422	ARG70434
<b>CXCL1/ GROα</b>	ARG70038	ARG70435
<b>CXCL2/ MIP-2</b>	ARG70423	ARG70436
<b>CXCL3/ GROγ</b>	ARG70424	ARG70437
<b>CXCL4</b>	ARG70425	
<b>CXCL5</b>	ARG70426	ARG70438
<b>CXCL6</b>	ARG70427	
<b>CXCL7</b>	ARG70428	ARG70439
<b>CXCL9</b>	ARG70429	ARG70441
<b>CXCL10</b>	ARG70039	ARG70442
<b>CXCL11</b>	ARG70430	ARG70443
<b>CXCL12</b>	ARG70140	ARG70198
<b>CXCL13</b>	ARG70431	
<b>CXCL16</b>		ARG70444

	Human	Mouse
<b>IL-1α</b>	ARG70042	ARG70151
<b>IL-1β</b>	ARG70028	ARG70152
<b>IL-1RA</b>	ARG70044	ARG70153
<b>IL-2</b>	ARG70029	ARG70154
<b>IL-3</b>	ARG70046	ARG70155
<b>IL-4</b>	ARG70047	ARG70156
<b>IL-5</b>	ARG70048	ARG70157
<b>IL-6</b>	ARG70030	ARG70158
<b>IL-7</b>	ARG70050	ARG70159
<b>IL-9</b>	ARG70052	ARG70160
<b>IL-10</b>	ARG70032	ARG70161
<b>IL-11</b>	ARG70054	ARG70162
<b>IL-12 p35</b>	ARG70055	ARG70163
<b>IL-12 p40</b>	ARG70056	ARG70164
<b>IL-12 p70</b>	ARG70382	
<b>IL-13</b>	ARG70057	ARG70165
<b>IL-15</b>	ARG70058	ARG70166
<b>IL-17A</b>	ARG70033	ARG70167
<b>IL-17B</b>	ARG70060	ARG70395
<b>IL-17F</b>	ARG70061	ARG70168
<b>IL-18</b>	ARG70473	ARG70169
<b>IL-19</b>	ARG70063	ARG70170
<b>IL-20</b>	ARG70064	ARG70171
<b>IL-21</b>	ARG70065	ARG70172
<b>IL-22</b>	ARG70066	ARG70173
<b>IL-23 p19</b>	ARG70067	

	Human	Mouse
<b>IL-24</b>	ARG70068	ARG70174
<b>IL-25</b>	ARG70069	ARG70175
<b>IL-26</b>	ARG70070	
<b>IL-27</b>		ARG70179
<b>IL-27B</b>	ARG70071	ARG70176
<b>IL-28B</b>	ARG70073	ARG70178
<b>IL-31</b>	ARG70075	
<b>IL-32</b>	ARG70076	
<b>IL-33</b>	ARG70077	ARG70180
<b>IL-34</b>	ARG70078	ARG70181
<b>IL-36α</b>	ARG70079	ARG70182
<b>IL-36β</b>	ARG70080	
<b>IL-36γ</b>	ARG70081	ARG70183
<b>IL-36RN</b>	ARG70082	
<b>IL-37</b>	ARG70083	
<b>TNF-α</b>	ARG70034	ARG70041
<b>TNF-β</b>	ARG70380	ARG70400
<b>IFN-α</b>	ARG70385	ARG70399
<b>IFN-β1a</b>		ARG70226
<b>IFN-γ</b>	ARG70035	ARG70372
<b>IFN-λ</b>	ARG70074	
<b>IFN-λ2</b>	ARG70072	ARG70177
<b>IFN-ω1</b>	ARG70386	
<b>GM-CSF</b>	ARG70037	ARG70192
<b>M-CSF</b>	ARG70133	ARG70193
<b>LIF</b>		ARG70407





## Complimentary & Comprehensive solution for ELISA analysis

GainData<sup>®</sup> is an ELISA calculator developed by arigo to simplify ELISA data analysis. It is a free web service for each visitor. It's easy to get exportable results with ELISA curve fitting by simply copying and pasting the raw data. The function of GainData<sup>®</sup> is not restricted to ELISA data analysis, it is also good for analyzing the data of assay kits. GainData<sup>®</sup> has been referenced in **Nature**, **Nature Medicine**, **Neuron**, and more scientific journals.



User friendly



4PL, 5PL  
linear regression



Slope  
calculation



Exportable  
(Excel, PDF)



EC50/IC50  
calculation



Not only ELISA  
but also assay kit



How to use GainData<sup>®</sup>



arigo  
minifilm

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