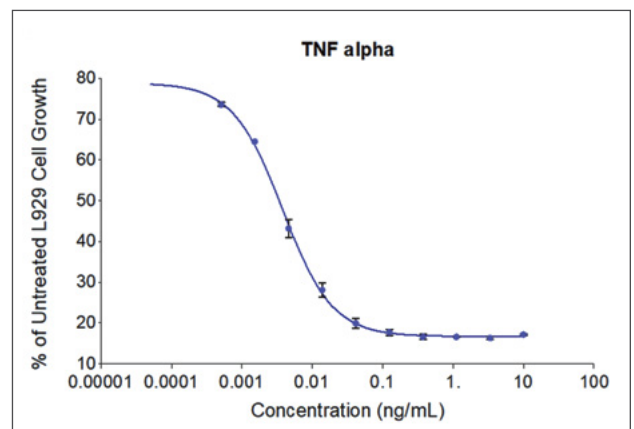


# Resources for Macrophage Study and Characterization

Proteintech now offers a complete set of resources for macrophage isolation, polarization, and characterization. Well known for their phagocytotic and antigen presentation abilities, macrophages are increasingly being studied for usage in targeted cancer therapies such as CAR-M and CAR-iMAC. These engineered macrophages might be able to overcome some of the tumor infiltration-related limitations faced by CAR-T cells. Proteintech's products are all developed in-house and can be manufactured as GMP-grade to meet the clinical needs of our customers.



▲ **HumanKine® Recombinant Human TNF alpha protein (HZ-1014):** The activity was determined through dose-dependent cytotoxicity in the L929 mouse adipose cell line. Cell number was quantitatively assessed by PrestoBlue® cell viability reagent.

## Cell Separation and Isolation Products

Product Name	Catalog No.	Method
CD11b Magnetic Beads	MS008	Positive Selection
CD11b Magnetic Beads Kit	KMS007	Positive Selection
CD14 Magnetic Beads	MS006	Positive Selection
CD14 Magnetic Beads Kit	KMS005	Positive Selection

## HumanKine® Cytokines and Growth Factors

Macrophage Subset	Protein	Catalog No.	Purity	Activity	Source	GMP-grade?
M1	GM-CSF	HZ-1002	>95%	0.08-0.8 ng/mL	HEK293	✓
	TNF alpha	HZ-1002	>95%	0.002-0.0026 ng/mL	HEK293	✓
	IFN gamma	HZ-1301	>95%	0.02-0.14 ng/mL	HEK293	✓
M2	M-CSF	HZ-1192	>95%	0.7-4.0 ng/mL	HEK293	✓
	IL-4	HZ-1004	>95%	0.07-0.4 ng/mL	HEK293	✓
	IL-10	HZ-1145	>95%	0.18-2.0 ng/mL	HEK293	✓
	TGF beta 1	HZ-1011	>95%	0.01-0.17 ng/mL	HEK293	✓
	IL-6	HZ-1019	>95%	0.03-0.24 ng/mL	HEK293	✓

## ELISA/AuthentiKine Kits

Target	Catalog No.	Species	Range	Sensitivity
IL-1 beta	KE00021	Human	3.9-250 pg/mL	1.5 pg/mL
IL-1R1	KE00116	Human	62.5-4000 pg/mL	5.0 pg/mL
AuthentiKine IL-6	KE00139	Human	7.8-500 pg/mL	1.2 pg/mL
AuthentiKine IL-10	KE00170	Human	15.6-1000 pg/mL	2.3 pg/mL
AuthentiKine IL-12 p40	KE00240	Human	31.25-2000 pg/mL	0.47 pg/mL
IL-12 p70	KE00019	Human	31.25-2000 pg/mL	1.5 pg/mL
IL-18	KE00193	Human	15.6-1000 pg/mL	0.3 pg/mL
AuthentiKine TNF alpha	KE00154	Human	15.6-500 pg/mL	8.6 pg/mL

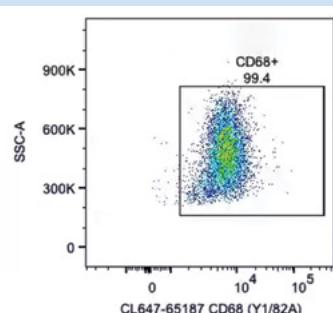
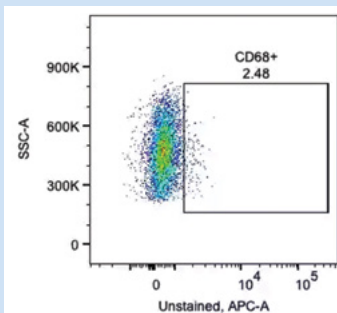
Anti-mouse ELISA kits are available at [ptglab.com/products/elisa-kits/](http://ptglab.com/products/elisa-kits/)

Additionally conjugated formats as well as anti-mouse antibodies are available at [ptglab.com/flow-cytometry-antibodies/](http://ptglab.com/flow-cytometry-antibodies/)

Antibody labeling kits (FlexAble) for customized conjugations to any antibody of choice are available at [ptglab.com/products/flexible-antibody-labeling-kits/](http://ptglab.com/products/flexible-antibody-labeling-kits/)

## Conjugated Antibodies for Flow Cytometry

Macrophage subset	Target	Clone	Unconjugated	CoraLite Plus® 405	FITC Plus	CoraLite Plus® 488	PE	APC	CoraLite Plus® 647	CoraLite Plus® 750
M0	CD11b	ICRF44	65116-1-Ig	CL405-65116	FITC-65116	CL488-65116	PE-65116	APC-65116	CL647-65116	CL750-65116
		3.9	65086-1-Ig	CL405-65086	FITC-65086	CL488-65086	PE-65086	APC-65086	CL647-65086	CL750-65086
	CD11c	BU15	65196-1-Ig	CL405-65196	FITC-65196	CL488-65196			CL647-65196	CL750-65196
		26IC	65246-1-Ig	CL405-65246	FITC-65246				CL647-65246	CL750-65246
	CD14	UCHM-1	65056-1-Ig	CL405-65056	FITC-65056		PE-65056		CL647-65056	
		2.4G2	65080-1-Ig		FITC-65080	CL488-65080	PE-65080		CL647-65080	
	CD16	3G8	65090-1-Ig	CL405-65090	FITC-65090	CL488-65090	PE-65090	APC-65090	CL647-65090	CL750-65090
M1	CD32	1D3F1	66529-1-Ig			CL488-66529				
		N/A	15625-1-AP							
		1E2F10	66406-1-Ig							
	CD80	2D10.4	65083-1-Ig				PE-65083		CL647-65083	
		N/A	14292-1-AP							
		3A9A7	66231-2-Ig							
	CD68	KP1	65202-1-Ig	CL405-65202	FITC-65202				CL647-65202	CL750-65202
		Y1/82A	65187-1-Ig		FITC-65187		PE-65187	APC-65187	CL647-65187	CL750-65187
		N/A	25747-1-AP			CL488-25747				
	CD86	BU63	65165-1-Ig	CL405-65165	FITC-65165	CL488-65165	PE-65165	APC-65165	CL647-65165	CL750-65165
M2	CD86	IT2.2	65118-1-Ig		FITC-65118				CL647-65118	CL750-65118
		N/A	13595-1-AP							
	CD163	GHI/61	65169-1-Ig		FITC-65169	CL488-65169	PE-65169	APC-65169	CL647-65169	
		N/A	16646-1-AP			CL488-16646				
	CD206	15-2	65155-1-Ig		FITC-65155		PE-65155	APC-65155	CL647-65155	
	N/A	18704-1-AP								
	CD209	N/A	25404-1-AP							



◀ **CoraLite® Plus 647 Anti-Human CD68, clone Y1/82A (CL647-65187):** Human PBMCs were intracellularly stained with 5 µl CoraLite® Plus 647 Anti-Human CD68. Cells were fixed with 4% PFA and permeabilized with intracellular staining permeabilization wash buffer. Monocytes were gated.

▶ **PE Anti-Human CD163, clone GHI/61 (PE-65169):** Human peripheral blood was surface stained with 10 µl FITC Anti-Human CD14 and 10 µl PE Anti-Human CD163. Sample was then treated with red blood cell lysis buffer.

