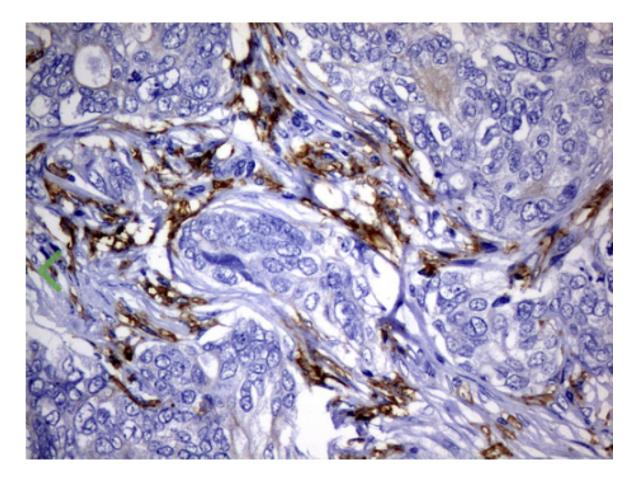
Macrophage Markers

What are macrophages?

Macrophages are phagocytic cells of the immune system that play a pivotal role in the innate immune response. They originate from circulating monocytes, which upon activation by pathogen-associated molecular patterns (PAMPs) or damage-associated molecular patterns (DAMPs) within the microenvironment, undergo a series of morphological and functional changes to transform into mature macrophages. Macrophages are endowed with a remarkable repertoire of effector functions, which enable them to eliminate invading pathogens efficiently. These responses include phagocytosis, antimicrobial peptide secretion, reactive oxygen & nitrogen species production. The responses also include cytokine and chemokine secretion. Notably, macrophages also possess antigen-presenting capabilities and can present antigenic peptides to T cells, thereby initiating the adaptive immune response

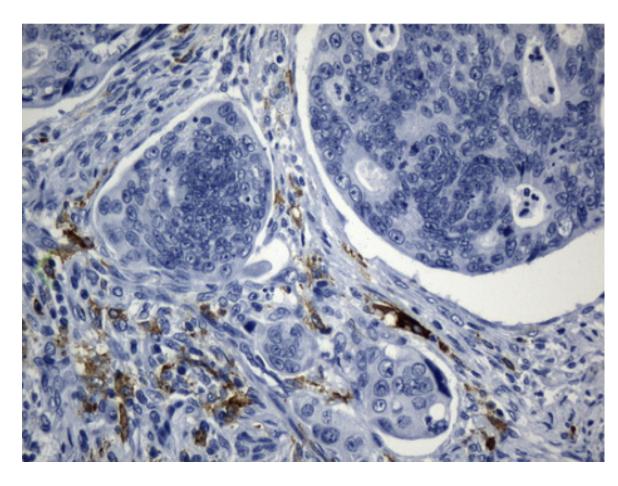
Popular Macrophage Markers



IHC staining of paraffin-embedded adenocarcinoma of human breast tissue using anti-FCGR2A mouse monoclonal antibody

Plot P03, gated on G1 OF 100 101 102 103 104 Green Fluorescence (GRN-HLog)

Flow cytometric analysis of living 293T cells transfected with FCGR1A overexpression plasmid (RC207487), Red)/empty vector (PS100001, Blue) using anti-CD64 antibody



IHC staining of paraffin-embedded adenocarcinoma of human colon tissue using anti-MSR1 mouse monoclonal antibody

CD32

Types of Macrophages –(M1 and M2)

Macrophages are a highly diverse cell population that can assume different phenotypes and functions in response to local environmental cues. Here are some of the main types of macrophages:

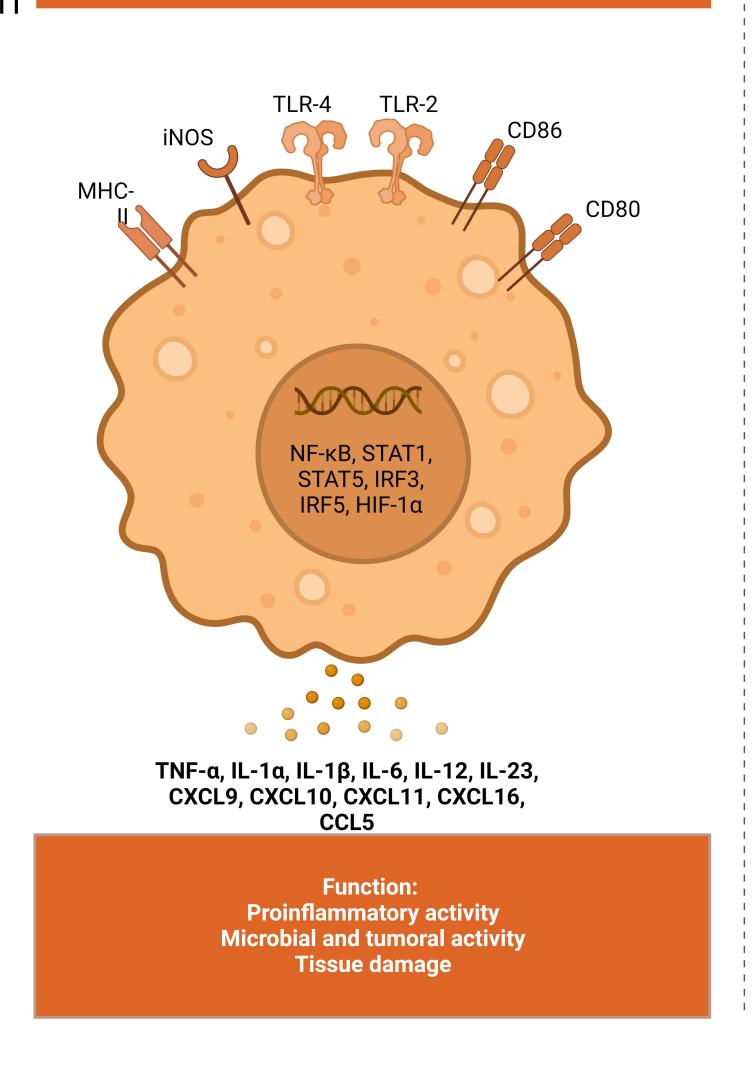
- 1. Classically activated macrophages (M1):
- 2. Alternatively activated macrophages (M2):

Get more information here

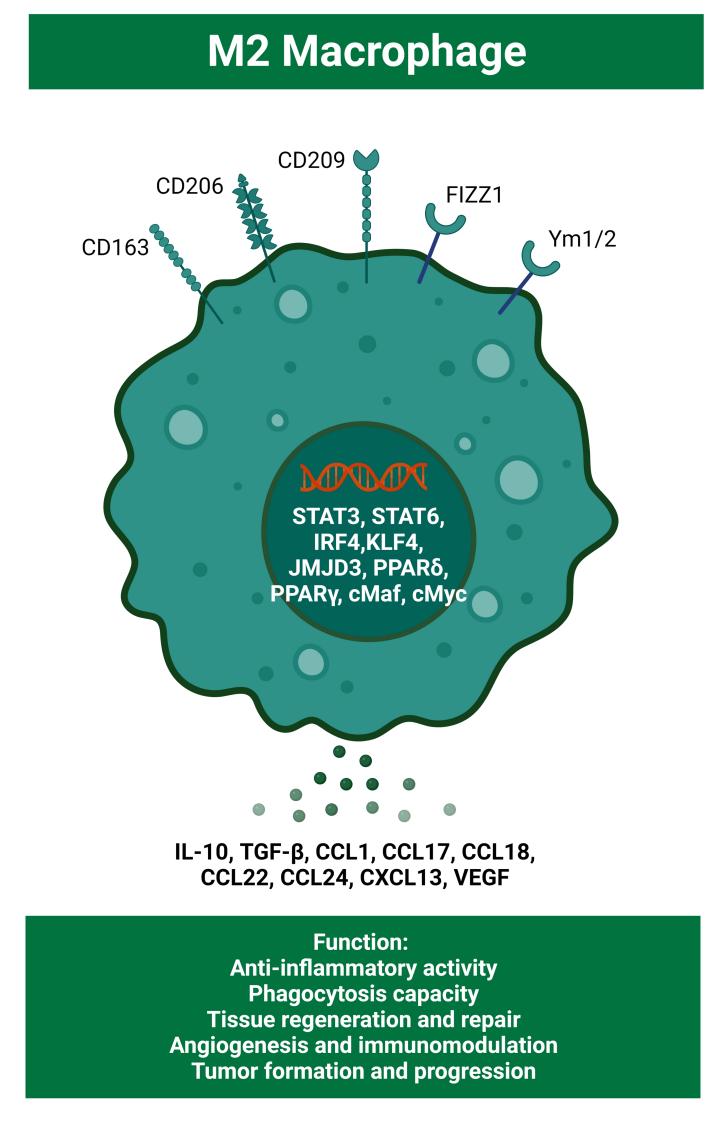


CD64

M1 Macrophage



CD204



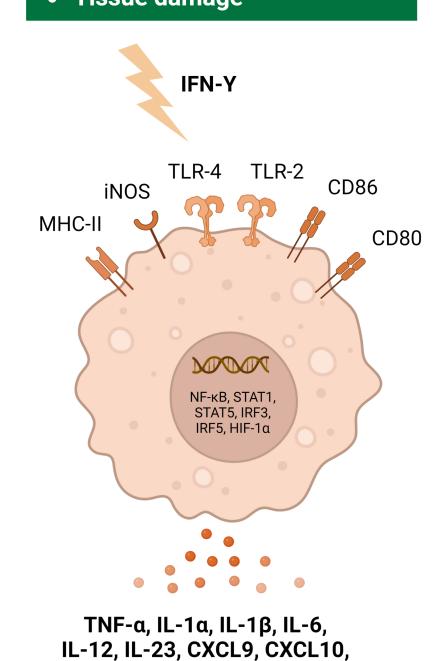
Get the antibody sampler panel for M1/M2 Macrophage Markers, contact our team at techsupport@origene.com

Macrophage Markers

Antibodies for M1 and M2 Macrophage Subsets

M1 macrophage

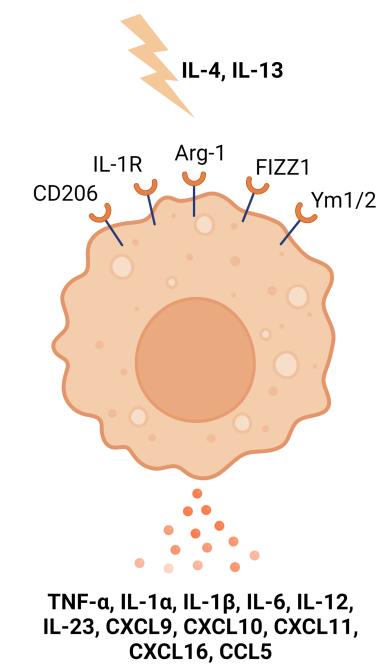
- Proinflammatory activityMicrobial and tumoral activity
- Microbial and tumoralTissue damage



CXCL11, CXCL16, CCL5

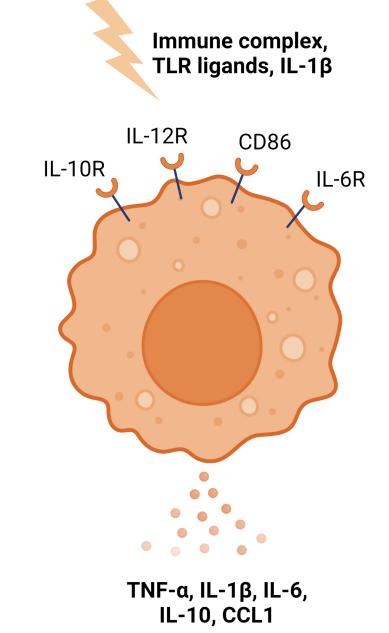
M2a macrophage

Enhance endocytic activityPromote cell growth, tissue repair



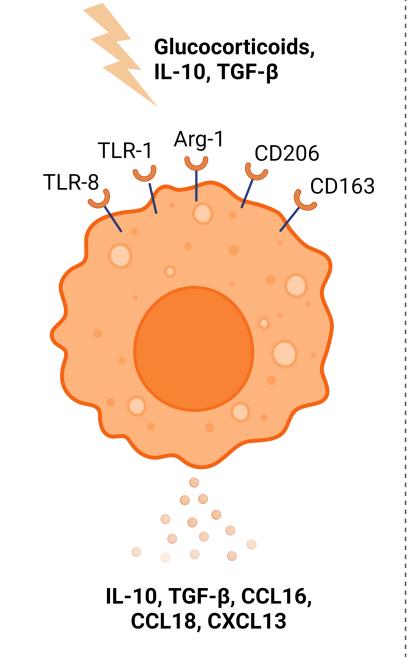
M2b macrophage

Promote Th2 differentiation
Promote parasitic, bacterial, and fungal infections



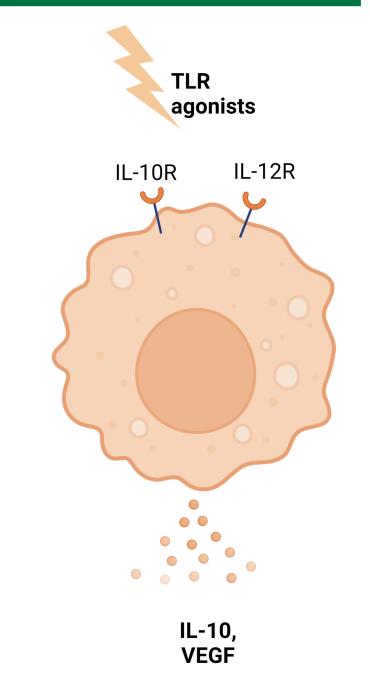
M2c macrophage

Phagocytosis of apoptotic cells



M2d macrophage

Proangiogenic abilityPromote tumor progression



	M1	M2a	M2b	M2c	M2d
Stimulation/Activation	IFN-gamma	IL-4	IL-1B	IL-10	IL-6
	LPS	IL-13	IL-1R	TGF-beta	Adenosine
Marker Expression				TGF-beta	Auenosine
	CD86	CD163		CD163	
	CD80	MHCII			
	CD68	SR	MHC II		
	MHCII	CD206			
	IL-1R	CD200R	TLR1	TLR8	VEGF
	TLR2	TGM2	IL-10R		
	TLR4	DecoyR	Arg-1		
	iNOS	IL-1R II	Aig ±		
	SOCS2	FIZZ1	IL-12R	CD206	
	SOCS3	Arg-1			
Cytokine secretion	TNF	IL-10	IL-1	IL-10	
	IL-1 beta	TGF-beta	IL-6	IL-12	
	IL-1 alpha	IL-1ra	TNF-alpha	TNF-alpha	IL-10
	IL-6	IL-6	TGF-beta		
	IL-12	IL-12	IL-10	TGF-beta	
	IL-23	IL-23			
Chemokine secretion	CCL10	CCL17	CCL1		
	CCL11	CCL22			
	CCL5	CCL24	CCL13		
	CCL8	CCL10	CXCL10		
	CCL16	CCL11	CCL18	CCR2	CCL5
	CCL9	CCL5			
	CCL2	CCL16		CXCL16	
	CCL3	- CCL16	CXCL16		
	CCL4				

