

## Product datasheet for **TA389097**

### CD47 Mouse Antibody [Clone ID: M054]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	M054
Applications:	ICC, IP, WB
Recommended Dilution:	<b>WB:</b> 1:500 <b>ICC:</b> 1:200
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Immunogen:	Clone (M054) was generated from a recombinant protein that included the extracellular region of human CD47 protein.
Specificity:	Clone M054 mouse monoclonal antibody detects native human CD47, as well as aldehyde-fixed CD47. The antibody works for staining in immunocytochemistry, capture and detection in ELISA, native immunoprecipitation and western blot. The antibody detects a 45 to 55 kDa band in native western blots of A431, BEAS-2B, MCF7, NCI-H446, NCI-H28, and NCI-H2052 cell lines.
Formulation:	PBS + 1 mg/ml BSA, 0.05% NaN <sub>3</sub> and 50% glycerol
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	45-55
Database Link:	<a href="#">Q08722</a>



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**Background:**

CD47 is a five-pass transmembrane protein expressed on all normal cells, as well as in cancer cells. CD47 is used by macrophages to distinguish between "self" and "non-self" cells. SIRP $\alpha$  expressed on myeloid cells including macrophages, and neuronal cells in the central nervous system, can bind CD47. SIRP $\alpha$  cytoplasmic tail can inhibit macrophage phagocytosis towards CD47-expressing cells. Thus, the CD47/SIRP $\alpha$  pathway serves as an innate immune checkpoint. Additionally, CD47 was reported to modulate lymphocyte cell activation and proliferation. CD47 is over-expressed in many types of cancer, and the expression level of CD47 on cancer cells is negatively associated with cancer survival. Monoclonal antibody therapies that can block CD47-SIRP $\alpha$  interaction are being actively pursued for clinical applications. In addition to SIRP $\alpha$ , CD47 interacts with thrombospondin-1, VEGFR2, FAS, and certain integrins in different contexts, and influences their downstream signaling.

**Note:**

Protein G purified tissue culture supernatant.