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Product datasheet for TA386150

Cd27 Rabbit Monoclonal Antibody [Clone ID: RM27-3E5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	RM27-3E5
Applications:	FC, IP, Neutralize
Reactivity:	Mouse
Host:	Rabbit
Isotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	This antibody was raised by immunising mouse with mouse CD27-human IgG1 Fc fusion protein. Isolated popliteal lymph node cells were then fused with P3U1 myeloma cells to produce stable hybridomas.

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Specificity: This antibody is specific for the extracellular domain of murine CD27, a TNF-receptor superfamily member.

This antibody recognises murine CD27, as confirmed by flow-cytometry and immunoprecipitation analysis (Sakanishi & Yagita, 2010), a member of the TNF-receptor superfamily. The interaction between CD27 and its ligand CD70, which is recognised by anti-CD70 antibody TAN 1-7 (Ab00816), is crucial to regulation of the survival and differentiation of T cells, B cells and NK cells. As a result, RM27-3E5 modulates multiple immune cell types. The original rat IgG2a version of RM27-3E5 did not deplete T cells, NKT or NK cells, but does enhance the proliferation of anti-CD3-stimulated splenic T cells (Sakanishi & Yagita, 2010). In murine models of melanoma, it promotes the persistence of tumour-specific CD8+ T cells within tumours, and reduces levels of PD-1 expression on CD8+ T cells (Roberts et al, 2010). Additionally, anti-CD27 reduces the proportion of FoxP3+ CD4+ T cells in tumours, and enhances the effector activity of IFNγ-secreting, tumour-infiltrating CD8+ T cells and NK cells (Roberts et al, 2010). Finally, anti-CD27 Ab treatment alters murine splenocyte cytokine production, significantly reducing IL-5 and IFN-γ synthesis, and increasing TNF-α production (Sumi et al, 2008). It also significantly suppresses total serum IgE levels, while significantly increasing IgG1 and IgG2a levels. These immune modulatory properties translate into potent anti-tumour effects in mice. Treatment of established murine melanoma with RM27-3E5 (rat IgG2a) resulted in a significant reduction in lung metastases and subcutaneous tumours, through an IFNγ-dependent mechanism mediated by CD8+ T cells and NK cells (Roberts et al, 2010). In murine models of T cell lymphoma, the tumour-specific CTL response induced by RM27-3E5 (rat IgG2a) promoted almost complete regression of tumours, regardless of CD27 expression on tumour cells (Sakanishi & Yagita, 2010). This antibody has been used to identify CD27-expressing cells through flow-cytometry (Koyanagi et al, 2012).

Formulation: PBS with 0.02% Proclin 300.

Concentration: lot specific

Conjugation: Unconjugated

Storage: Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.

Stability: 3 years from dispatch.

Gene Name: CD27 antigen

Database Link: Entrez Gene 21940 Mouse
P41272

Synonyms: MGC20393; S152; T14; TNFRSF7; Tp55

Note: This chimeric rabbit antibody was made using the variable domain sequences of the original Rat IgG2a format, for improved compatibility with existing reagents, assays and techniques.