

## Product datasheet for **TA386151**

### **Cd27 Rat Monoclonal Antibody [Clone ID: RM27-3E5]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	RM27-3E5
Applications:	FC, IP, Neutralize
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a, 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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<b>Specificity:</b>	<p>This antibody is specific for the extracellular domain of murine CD27, a TNF-receptor superfamily member.</p> <p>This antibody recognises murine CD27, as confirmed by flow-cytometry and immunoprecipitation analysis (Sakanishi &amp; 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 &amp; 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 IFN<math>\gamma</math>-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-<math>\gamma</math> synthesis, and increasing TNF-<math>\alpha</math> 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 IFN<math>\gamma</math>-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 &amp; Yagita, 2010). This antibody has been used to identify CD27-expressing cells through flow-cytometry (Koyanagi et al, 2012).</p>
<b>Formulation:</b>	PBS with 0.02% Proclin 300.
<b>Concentration:</b>	lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
<b>Stability:</b>	3 years from dispatch.
<b>Gene Name:</b>	CD27 antigen
<b>Database Link:</b>	<a href="#">Entrez Gene 21940 Mouse P41272</a>
<b>Synonyms:</b>	MGC20393; S152; T14; TNFRSF7; Tp55