

## Datasheet: MCA4711

<b>Description:</b>	RAT ANTI MOUSE CD254
<b>Specificity:</b>	CD254
<b>Other names:</b>	sRANKL
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	IK22/5
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.25 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/10 - 1/20
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein</b>	IgG concentration 0.5mg/ml

## Concentrations

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### External Database

#### Links

#### UniProt:

[O35235](#)    [Related reagents](#)

#### Entrez Gene:

[21943](#)    Tnfsf11    [Related reagents](#)

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### Synonyms

Opgl, Rankl, Trance

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### RRID

AB\_2206081

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### Specificity

**Rat anti Mouse CD254 antibody, clone IK22/5** recognises CD254, otherwise known as Receptor activator of nuclear factor kappa B ligand (RANKL) or TNF-related activation-induced cytokine (TRANCE), a member of the tumour necrosis factor ligand superfamily. CD254 is a cytokine that binds osteoprotegerin or RANK and plays an important role in bone metabolism, where it acts as an osteoclast differentiation and activation factor. Overproduction of CD254 is implicated in a range of degenerative bone diseases.

CD254 is also expressed by T helper cells and augments the ability of dendritic cells to stimulate naïve T cell proliferation. It may play a role in regulating interactions between T cells and dendritic cells and in the regulation of T cell-dependent immune responses.

Rat anti Mouse CD254 antibody, clone IK22/5 blocks ligand binding.

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### Flow Cytometry

Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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### References

1. Kamijo, S. *et al.* (2006) Amelioration of bone loss in collagen-induced arthritis by neutralizing anti-RANKL monoclonal antibody. [Biochem Biophys Res Commun. 347: 124-32.](#)
  2. Miyahira, Y. *et al.* (2003) Cutting edge: a potent adjuvant effect of ligand to receptor activator of NF-kappa B gene for inducing antigen-specific CD8+ T cell response by DNA and viral vector vaccination. [J Immunol. 171: 6344-8.](#)
  3. Miyahira, Y. *et al.* (2005) Immune responses against a single CD8+-T-cell epitope induced by virus vector vaccination can successfully control *Trypanosoma cruzi* infection. [Infect Immun. 73: 7356-65.](#)
  4. Knoop, K. *et al.* (2009) RANKL is necessary and sufficient to initiate development of antigen-sampling M cells in the intestinal epithelium. [J Immunol. 183:5738-47.](#)
  5. Nair, V.R. *et al.* (2016) Microfold Cells Actively Translocate Mycobacterium tuberculosis to Initiate Infection. [Cell Rep. 16 \(5\): 1253-1258.](#)
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### Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in

frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight@800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight@650</a> , <a href="#">DyLight@800</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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