

## Technical Data Sheet

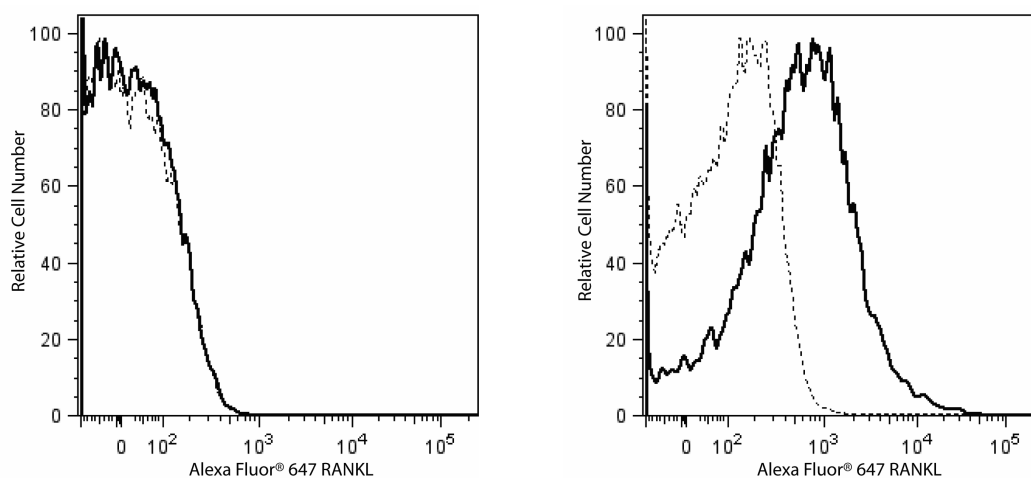
## Alexa Fluor® 647 Rat anti-Mouse RANKL/TRANCE

## Product Information

<b>Material Number:</b>	560296
<b>Alternate Name:</b>	TRANCE, TRANCEODF, OPGL, sOdf, CD254, OPTB2, hRANKL2
<b>Size:</b>	0.1 mg
<b>Concentration:</b>	0.2 mg/ml
<b>Clone:</b>	IK22-5
<b>Immunogen:</b>	Mouse recombinant RANKL
<b>Isotype:</b>	Rat IgG2a, $\kappa$
<b>Reactivity:</b>	QC Testing: mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

TRANCE/RANKL/OPGL/ODF is a recently identified member of the tumor necrosis factor family. TRANCE (TNF-Related Activation-Induced Cytokine Receptor) or RANKL (Receptor Activator of NF- $\kappa$ B Ligand) has been implicated in interactions between T cells and dendritic cells. TRANCE/RANKL binds to RANK on dendritic cells, upregulates the expression of anti-apoptotic protein Bcl-XL suggesting a role in dendritic cell survival. TRANCE/RANKL is also important in T- and B-cell maturation. As OPGL/ODF (Osteoprotegerin Ligand/Osteoclast Differentiation Factor), the same protein can both activate mature osteoclasts and mediate osteoclastogenesis. OPGL/TRANCE deficient mice show severe osteoporosis and complete absence of osteoclasts as a result of lack of osteogenesis. It is expressed abundantly by mouse activated T cells, not B cells. It is also expressed on osteoclasts.



**Analysis of Alexa Fluor® 647 Rat anti-Mouse RANKL on mouse unstimulated and ConA-stimulated splenocytes.**  
Unstimulated splenocytes (left panel) and ConA activated splenocytes (right panel) were stained with either Alexa Fluor® 647 Rat anti-Mouse RANKL (solid line) or Alexa Fluor® 647 Rat IgG2a,  $\kappa$  Isotype Control (clone R35-95, Cat. No. 557906, dotted line). Flow cytometry was performed on a BD FACSCanto™ II System.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

## Application Notes

## Application

Flow cytometry

Routinely Tested

## Suggested Companion Products

Catalog Number	Name	Size	Clone
557906	Alexa Fluor® 647 Rat IgG2a, $\kappa$ Isotype Control	100 tests	R35-95

## Product Notices

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1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
4. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
6. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

## References

- Ando T, Ichikawa J, Wako M et al. TWEAK/Fn14 interaction regulates RANTES production, BMP-2-induced differentiation, and RANKL expression in mouse osteoblastic MC3T3-E1 cells. *Arthritis Res Ther.* 2006; 8(5):R146. (Biology)
- Hofbauer LC, Schoppet M. Clinical implications of the osteoprotegerin/RANKL/RANK system for bone and vascular diseases. 2004; 292(4):490-495. (Biology)
- Kamijo S, Nakajima A, Ikeda K et al. Amelioration of bone loss in collagen-induced arthritis by neutralizing anti-RANKL monoclonal antibody. *Biochem Biophys Res Commun.* 2006; 347(1):124-132. (Clone-specific)