

OX40/CD134

Prediluted Rabbit Monoclonal Antibody
901-3245-020623

BIOCARE
M E D I C A L

Available Product Formats				
Format	Catalog Number	Description	Dilution	Diluent
Q Series— For Leica BOND-III	ALI 3245 G7	7.0 mL	Ready-to-use	N/A

Intended Use: For In Vitro Diagnostic Use

OX40/CD134 [EPR23001-88] is a rabbit monoclonal antibody that is intended for laboratory use in the qualitative identification of OX40/CD134 protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Summary and Explanation:

The OX40 receptor, also known as CD134, is a tumor necrosis superfamily receptor (TNFR4) that is recognized as a costimulatory receptor for T cells. OX40 is predominantly expressed on activated CD4 T cells. OX40 has been shown to be essential for the regulation, differentiation, and survival of conventional CD4 and CD8 T cells.¹ Multiple studies have demonstrated that activation of the OX40 receptor via ligand or agonist (antibody) binding enhances T cell-mediated anti-tumor immunity.²⁻⁴

Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a one-step or two-step detection procedure can be applied. A one-step procedure will feature an enzyme labeled polymer that binds the primary antibody. A two-step procedure will feature a linker antibody added to bind to the primary antibody. An enzyme-labeled polymer is then added to bind the linker antibody. These detections of the bound antibodies are evidenced by a colorimetric reaction.

Source: Rabbit monoclonal

Species Reactivity: Human; others not tested

Clone: EPR23001-88

Isotype: IgG

Protein Concentration: Call for lot specific Ig concentration.

Epitope/Antigen: OX40/CD134

Cellular Localization: Tonsil

Positive Tissue Control: Membrane

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative

Storage and Stability:

Store at 2°C to 8°C. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Protocol Recommendations (Q Series – For Leica BOND-III):

ALI3245 is intended for use with the Leica BOND-III. Refer to the User Manual for specific instructions for use. Recommended protocol parameters are as follows:

Protocol Name: IHC Protocol F

Detection: Bond Polymer Refine

HIER: 30 min with ER2

Peroxide Block: 5 min

Marker (Primary Antibody): 15 min

Post Primary: 8 min

Polymer: 8 min

Mixed DAB Refine: 10 min

Hematoxylin: 5 min

Limitations:

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

Quality Control:

Refer to CLSI Quality Standards for Design and Implementation of Immunohistochemistry Assays; Approved Guideline-Second edition (I/LA28-A2) CLSI Wayne, PA USA (www.clsi.org). 2011

Precautions:

1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)⁵

2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come into contact with sensitive areas, wash with copious amounts of water.⁶

3. Microbial contamination of reagents may result in an increase in nonspecific staining.

4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.

5. Do not use reagent after the expiration date printed on the vial.

6. The SDS is available upon request and is located at <http://biocare.net>.

Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

References:

1. Toennies HM, *et al.* Expression of CD30 and Ox40 on T lymphocyte subsets is controlled by distinct regulatory mechanisms. *J Leukoc Biol.* 2004 Feb;75(2):350-7.

2. Curti BD, *et al.* OX40 is a potent immune-stimulating target in late-stage cancer patients. *Cancer Res.* 2013 Dec 15; 73(24):7189-98.

3. Linch SN, *et al.* OX40 Agonists and Combination Immunotherapy: Putting the Pedal to the Metal. *Front Oncol.* 2015; 5:34.

4. Jeong S, Park SH. Co-Stimulatory Receptors in Cancers and Their Implications for Cancer Immunotherapy. *Immune Netw.* 2020 Feb; 20(1):e3.

5. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."

6. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.

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TP v1 (10/26/2021)

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