

## TRBC1

Prediluted Rabbit Polyclonal Antibody  
902-3280-050222

**BIOCARE**  
M E D I C A L

Available Product Formats				
Format	Catalog Number	Description	Dilution	Diluent
Predilute	APR 3280 AA	6.0 mL	Ready-to-use	N/A
UltraLine – For BenchMark	AVR 3280 G	6.0 mL	Ready-to-use	N/A
Q Series– For Leica BOND-III	ALR 3280 G7	7.0 mL	Ready-to-use	N/A

### Intended Use:

For Research Use Only. Not for use in diagnostic procedures.

### Summary and Explanation:

T-cell Receptors (TCR) are antigen receptors expressed on the surface of T lymphocytes that recognize fragments of antigen bound to major histocompatibility complex (MHC) molecules (1). TCR is a heterodimer commonly comprised of an  $\alpha$  and  $\beta$  chain (2). T cell receptor  $\beta$ -chain is composed of constant domains TRBC1 and TRBC2 (3). Normal T cell populations contain both TRBC1 and TRBC2 compartments, whereas T cell malignancies are restricted to only TRBC1 or TRBC2. Distinguishing between TRBC1 and TRBC2 may help identify the correct anticancer treatment strategy for T cell malignancies (3).

### 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 polyclonal

**Species Reactivity:** Human; others not tested

**Clone:** N/A

**Isotype:** N/A

**Protein Concentration:** Lot specific Ig concentration is not available.

**Epitope/Antigen:** TRBC1

**Cellular Localization:** Cell membrane

**Positive Tissue Control:** Lymphoma, tonsil

### 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.

### Staining Protocol Recommendations (intelliPATH FLX® and manual use):

**Peroxide Block:** Block for 5 minutes with Peroxidized 1.

**Pretreatment:** Perform heat retrieval using Diva Decloaker. Refer to the Diva Decloaker data sheet for specific instructions.

**Protein Block (Optional):** Incubate for 5-10 minutes at RT with Background Punisher.

**Primary Antibody:** Incubate for 30 minutes at RT.

**Probe:** N/A

**Polymer:** Incubate for 30 minutes at RT with a tertiary polymer.

**Chromogen:** Incubate for 5 minutes at RT with Biocare's DAB – OR – Incubate for 5-7 minutes at RT with Warp Red.

**Counterstain:** Counterstain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

### Technical Note:

This antibody, for intelliPATH FLX and manual use, has been standardized with MACH 4 detection system. Use TBS for washing steps.

### Staining Protocol Recommendations (Ventana BenchMark ULTRA):

AVR3280 is intended for use with the BenchMark ULTRA. Refer to the User Manual for specific instructions for use. Recommended protocol parameters are as follows:

**Template/Detection:** OptiView DAB IHC

**Pretreatment Protocol:** CC1 64 minutes

**Peroxidase:** Pre-Primary Peroxidase Inhibitor

**Primary Antibody:** 8 minutes, 36°C

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

ALR3280 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:** 20 min with ER1

**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:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

### 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 ( $\text{NaN}_3$ ) 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) (4)

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. (5)

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>.

### Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.



60 Berry Drive  
Pacheco, CA 94553  
USA

TP v1 (10/26/2021)

Tel: 800-799-9499 | [www.biocare.net](http://www.biocare.net) | Fax: 925-603-8080

## TRBC1

Prediluted Rabbit Polyclonal Antibody  
902-3280-050222

**BIOCARE**  
M E D I C A L

### References:

1. Sewell AK. Why must T cells be cross-reactive? Nat Rev Immunol. 2012 Sep;12(9):669-77.
2. Chandran SS, Klebanoff CA. T cell receptor-based cancer immunotherapy: Emerging efficacy and pathways of resistance. Immunol Rev. 2019;290(1):127-147.
3. Maciocia PM, Wawrzyniecka PA, Philip B, et al. Targeting the T cell receptor  $\beta$ -chain constant region for immunotherapy of T cell malignancies. Nat Med. 2017 Dec;23(12):1416-1423.
4. 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."
5. 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.

Ultraline antibodies are developed solely by Biocare Medical LLC and do not imply approval or endorsement of Biocare antibodies by Ventana Medical Systems, Inc or Roche. Biocare, Ventana and Roche are not affiliated, associated or related in any way. Ventana®, BenchMark®, ultraView and OptiView are trademarks of Roche.

Q Series antibodies are developed solely by Biocare Medical LLC and do not imply approval or endorsement of Biocare antibodies by Leica Biosystems. Biocare and Leica Biosystems are not affiliated, associated or related in any way. Leica, Leica Biosystems, BOND-MAX and BOND-III are trademarks of Leica Biosystems.