

Rev.: 2026-3-20

CD247 Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX50375

Clone# BP6342

Predicted Molecular Wt: 19kDa
Species Cross-reactivity: Human
Applications: IHC-P

Purity: ProA affinity purified IgG
Form: Liquid
Swissprot ID: P20963

Background:

CD247 is a part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD247/CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways.

CD247 is exclusively and abundantly expressed in hematopoietic immune cells, including T lymphocytes and NK cells, with the highest protein levels detected in lymphoid organs such as the bone marrow, spleen, thymus, and tonsil.

CD247 has emerged as a valuable diagnostic and immune-status biomarker in clinical pathology. In cancer diagnosis, immunohistochemical detection of CD247 aids in distinguishing hematological malignancies from solid tumors and identifying Hodgkin's lymphoma (which is consistently CD247-negative) from other lymphomas.

Subcellular location:

Membrane/Cytoplasm

Recommended Method:

Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

Immunogen:

The synthetic peptide corresponding to Human CD247 aa 115-164.

Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

Storage Conditions:

-25°C to -18°C

Shipment Instructions:

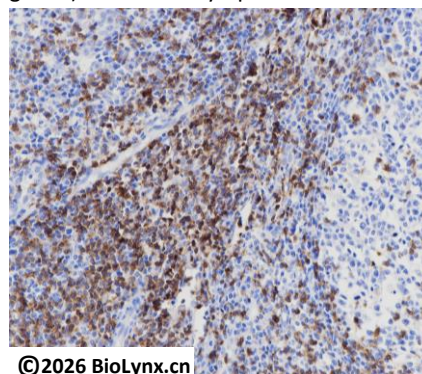
Shipped on blue ice. Upon delivery store at -25°C to -18°C. Avoid freeze / thaw cycles.

Recommended Dilution:

IHC-P: 1:100-1:200

Background References:

1. Dexiu C. et al. (2022) Scand J Immunol 96(1).
2. Eldor R. et al. (2015) Diabetes Care 38(1):113-8.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil labelling CD247 with BP6342.

Product QC'd by: 

For research use only. Not for use in diagnostic or therapeutic applications.