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Product Information

Anti-CD3ζ chain antibody, Hamster monoclonal
clone H146-968, purified from hybridoma cell culture

Product Number **SAB4200219**

Product Description

Anti-CD3 ζ chain (hamster IgG2 isotype) is derived from the hybridoma H146-968 produced by the fusion of mouse myeloma cells (P3X63Ag8.653) and splenocytes from an American hamster immunized with a peptide corresponding to a fragment of mouse CD3 ζ (CD247)(GeneID: 12503) coupled to KLH.[1] The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-CD3 ζ chain recognizes human and mouse CD3 ζ chain. The product may be used in several immunochemical techniques including immunoblotting (~16 kDa), immunoprecipitation,[1] immunocytochemistry, and flow cytometry.[2]

The T-cell receptor (TCR) functions in both antigen recognition and signal transduction, which are crucial initial steps of antigen-specific immune responses. TCR integrity is vital for the induction of optimal and efficient immune responses, including the routine elimination of invading pathogens and the elimination of modified cells and molecules. Of the TCR subunits, the ζ-chain has a key role in receptor assembly, expression, and signaling. Downregulation of TCR ζ-chain expression and impairment of T-cell function have been shown in T-cells isolated from hosts with various chronic pathologies, including cancer, autoimmune disorders, and infectious diseases.[3]

Reagents

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 2.5-5.0 µg/mL is recommended using Jurkat or EL4 cell extracts.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Rozdzial, M.M., et al., *J. Immunol.,* **153**, 1563-1580 (1994).
2. Davanture, S., et al., *J. Immunol.,* **175**, 3140-3149 (2005).
3. Banyiash, M., *Nature Rev. Immunol.,* **4**, 675-687 (2004).

RC,VS,GG,TD,KAA,PHC,MAM 04/21-1