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ProductInformation

ANTI- BCL-10 (AQ-18)
Developed in Rabbit, IgG Fraction of Antiserum

Product Number **B 0306**

Product Description

Anti-Bcl-10 is developed in rabbit using a synthetic peptide corresponding to amino acid residues 216-233 of human Bcl-10 with N-terminal added lysine, conjugated to KLH with glutaraldehyde, as immunogen. The corresponding sequence in rat and mouse differs by 3 amino acids. Whole antiserum is fractionated and further purified by anion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.

Anti-Bcl-10 specifically recognizes Bcl-10 by immunoblotting and immunoprecipitation (approximately 32 kDa). Staining of Bcl-10 by immunoblotting is inhibited with the immunizing peptide. Also, the antibody may be used for detection of Bcl-10 by immunohistochemistry. The epitope(s) recognized by the antibody is compatible with routine formalin-fixation and paraffin embedding. The antibody reacts with Bcl-10 of human, rat and mouse origin.

Bcl-10, an N-terminal CARD (Caspase Recruitment Domain) containing protein, is also designated CIPER, mE10, cE10, CARMEN and CLAP.[1-6] Bcl-10 is a cellular homolog of the equine herpesvirus-2 protein E-10 (vCLAP). It has been implicated in the regulation of apoptosis by interacting with caspase 9, enhancing procaspase 9 processing and triggering its activation when overexpressed in the cell.[3,7]

Bcl-10 cellular overexpression induces JNK, p38-MAPK and NF-κB activation. Deregulation of Bcl-10 expression has also demonstrated to be involved in cellular oncogenesis.[1,5] In mice, Bcl-10 plays an important role in immune system functioning and in the development of the central nervous system, while its roles in the *in vivo* execution of cell death and oncogenesis are not clear.[8]

Mucosa-associated lymphoid tissue (MALT) B lymphomas with the t(1;14)(p22;q32) are associated with overexpression and constitutive activity of Bcl-10. Such tumors contain a variety of mutations, most of which result in truncations either in the CARD domain or carboxy-terminal to it. Bcl-10 mutations are also found in cases of follicular lymphoma and diffuse large B cell lymphoma.[9] Mutations of the Bcl-10 gene do not appear to play a major role in the pathogenesis of human solid neoplasms or leukemias.

In normal tissues Bcl-10 is detectable in lymphoid organs and in the cytoplasm of mammary gland cells. On the other hand, both nuclear and cytoplasmic expression are detected in MALT lymphomas especially those with the translocation t(1;14)(p22;q32).[10] Bcl-10 protein was reported to bind itself, TRAF1, TRAF2, TRAF5 and CARD9.[4,7,11] Overexpressed Bcl-10 protein has been shown to be arranged in cytoplasmic filaments in cultured cells and reported to be essential for recruitment of several signal transducer molecules such as TRADD and RIP.[12]

Reagent

Anti-Bcl-10 is provided as the IgG fraction of antiserum in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution.
Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2 °C to 8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. 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

A minimum working dilution of 1:2,500 is determined by immunoblotting using whole extracts of human THP-1 acute monocytic leukemia cells or human Raji Burkitt's lymphoma cells.

A minimum working dilution of 1:500 is determined by immunoblotting using a whole extract of mouse NIH-3T3 fibroblasts.

For IP, 5 µg to 10 µg of the antibody immunoprecipitates Bcl-10 from RIPA lysate of 5 x 10^5 human Raji Burkitt's lymphoma cells or human THP-1 acute monocytic leukemia cells.

A minimum working dilution of 1:250 is determined by indirect immunoperoxidase staining of heat-retrieved, formalin-fixed, paraffin-embedded tissue sections of rat spleen.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilution by titration test.

References

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