

BCLAF1 Antibody / Bcl-2-associated transcription factor 1 (FY12343)

Catalog No.	Formulation	Size
FY12343	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q9NYF8
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml Immunoprecipitation : 2-4ug/500ug of lysate Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This BCLAF1 antibody is available for research use only.

Description

The BCLAF1 antibody targets Bcl-2-associated transcription factor 1, a nuclear protein encoded by the BCLAF1 gene that links transcriptional control with apoptosis regulation. Originally identified through interaction with anti-apoptotic Bcl-2 family members, Bcl-2-associated transcription factor 1 functions as both a transcriptional repressor and RNA-binding factor influencing mRNA processing, DNA damage responses, and chromatin organization. The BCLAF1 antibody provides researchers with a versatile reagent for studying gene regulation, cell death pathways, and the integration of nuclear signaling networks.

Bcl-2-associated transcription factor 1 localizes predominantly to the nucleus, where it binds chromatin and interacts with splicing and transcription complexes. It is activated by cellular stress and DNA damage, often promoting pro-apoptotic gene expression or enhancing p53-mediated transcriptional programs. The BCLAF1 antibody is used to detect nuclear foci formation following genotoxic stress, a hallmark of its activation in DNA repair pathways.

Beyond apoptosis, Bcl-2-associated transcription factor 1 contributes to mRNA splicing and export. It interacts with RNA-binding proteins and components of the exon junction complex, linking transcriptional regulation to post-transcriptional RNA processing. Through these activities, it modulates the expression of genes involved in development, immune regulation, and cell differentiation. Using the BCLAF1 antibody, scientists can explore how its dual DNA- and RNA-binding capabilities coordinate nuclear responses to environmental stressors.

Dysregulation of BCLAF1 has been associated with cancer, viral infection, and inflammatory disease. Some viruses, such as adenovirus and cytomegalovirus, express proteins that bind and inactivate BCLAF1 to block host apoptosis and favor viral replication. Conversely, elevated expression of Bcl-2-associated transcription factor 1 has been linked to tumor suppression and enhanced sensitivity to chemotherapeutic agents. These opposing effects underscore the complexity of its biological roles. The BCLAF1 antibody supports functional studies designed to dissect these mechanisms in both normal and transformed cells.

The BCLAF1 antibody is applicable in western blotting, immunofluorescence, chromatin immunoprecipitation, and immunohistochemistry. It provides high specificity for the nuclear form of the protein and allows visualization of expression across tissue types. Investigators studying DNA damage signaling, RNA metabolism, or apoptosis can utilize this antibody to identify dynamic changes in protein localization and abundance following genotoxic or apoptotic stimuli.

NSJ Bioreagents supplies the BCLAF1 antibody as a high-quality research tool for exploring transcriptional control, cell death, and mRNA processing. By revealing the molecular pathways coordinated by Bcl-2-associated transcription factor 1, this reagent helps clarify how nuclear signaling integrates stress responses with survival outcomes. The antibody's consistency across assays ensures reproducible data in molecular biology, oncology, and virology research.

Application Notes

Optimal dilution of the BCLAF1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human BCLAF1 recombinant protein (Position: H293-E901) was used as the immunogen for the BCLAF1 antibody.

Storage

After reconstitution, the BCLAF1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.