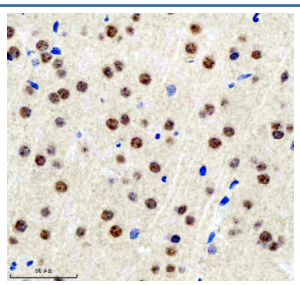
BCLAF1 Antibody / Bcl-2-associated transcription factor 1 (FY12343)

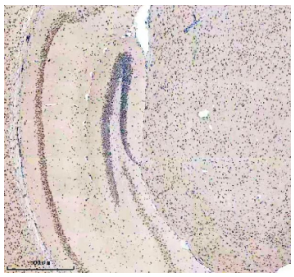
Catalog No.	Formulation	Size
FY12343	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
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 Na2HPO4.
UniProt	Q9NYF8
Localization	Nuclear, cytoplasmic
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.



Immunohistochemical staining of BCLAF1 using anti-BCLAF1 antibody. BCLAF1 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-BCLAF1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



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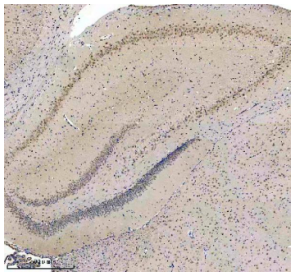
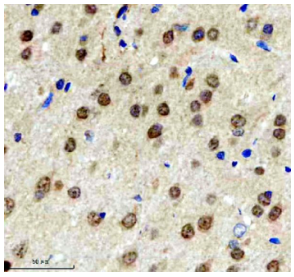


Immunohistochemical staining of BCLAF1 using anti-BCLAF1 antibody. BCLAF1 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-BCLAF1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



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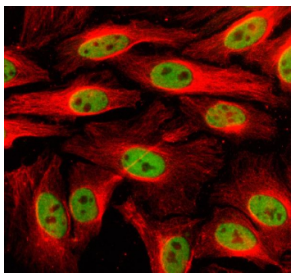
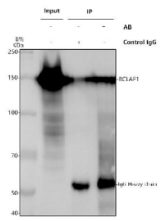
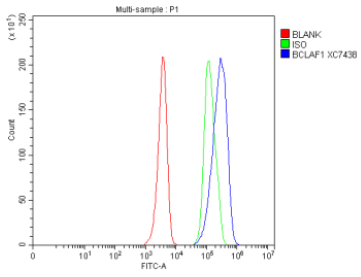


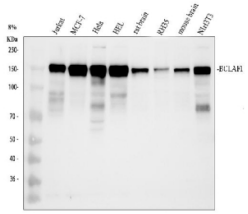
Immunofluorescent staining of BCLAF1 using anti-BCLAF1 antibody (green) and anti-Beta Tubulin antibody (red). BCLAF1 was detected in an immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-BCLAF1 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG and Cy3 Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



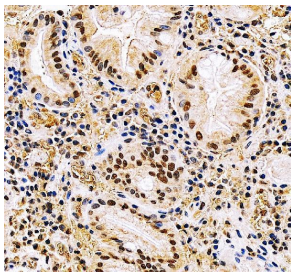
Immunoprecipitation of BCLAF1 in Hela whole cell lysate. Western blot analysis of BCLAF1 using anti-BCLAF1 antibody. Lane 1: Hela whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-BCLAF1 antibody in Hela whole cell lysate, Lane 3: anti-BCLAF1 antibody (2ug) + Hela whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-BCLAF1 antibody at a dilution of 0.5 ug/ml and probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using ECL Plus Western Blotting Substrate. A predominant band is detected at approximately 150 kDa, above the predicted ~106 kDa but consistent with the apparent molecular weight reported for the heavily modified nuclear protein BCLAF1 in peer reviewed studies.



Flow Cytometry analysis of HEL cells using anti-BCLAF1 antibody. Overlay histogram showing HEL cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BCLAF1 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of BCLAF1 using anti-BCLAF1 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Jurkat whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human HEL whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat RH35 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BCLAF1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A predominant band is detected at approximately 150 kDa in all samples, running above the predicted ~106 kDa but consistent with the apparent molecular weight reported for the heavily modified nuclear protein BCLAF1 in peer reviewed studies.



BCLAF1 Antibody Human Stomach Cancer IHC. Immunohistochemical staining of FFPE human stomach cancer tissue with BCLAF1 antibody at 2 ug/ml. Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 8 EDTA buffer prior to staining. BCLAF1 immunoreactivity is observed predominantly within the nuclei of malignant epithelial cells, with weaker cytoplasmic staining in a subset of cells, consistent with the expected localization of this transcriptional regulator involved in apoptosis, RNA processing, and gene expression. Cell nuclei are counterstained with hematoxylin (blue).

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 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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