BOSTER BIOLOGICAL TECHNOLOGY
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Anti-BRD2 Antibody Picoband®

Catalog Number: A02412-1

About BRD2

Bromodomain-containing protein 2 is a protein that in humans is encoded by the BRD2 gene. It is mapped to 6p21.32. This gene encodes a transcriptional regulator that belongs to the BET (bromodomains and extra terminal domain) family of proteins. This protein associates with transcription complexes and with acetylated chromatin during mitosis, and it selectively binds to the acetylated lysine-12 residue of histone H4 via its two bromodomains. The gene maps to the major histocompatability complex (MHC) class II region on chromosome 6p21.3, but sequence comparison suggests that the protein is not involved in the immune response. This gene has been implicated in juvenile myoclonic epilepsy, a common form of epilepsy that becomes apparent in adolescence. Multiple alternatively spliced variants have been described for this gene.

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Overview

Product Name	Anti-BRD2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-BRD2 Antibody Picoband® catalog # A02412-1. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P25440

Technical Details

Immunogen	E.coli-derived human BRD2 recombinant protein (Position: M1-Q214).

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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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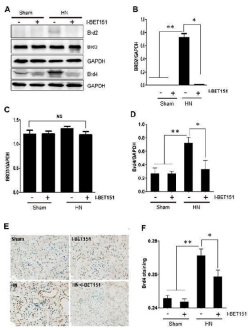
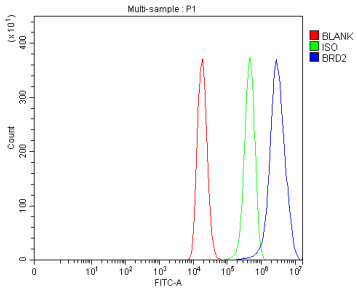
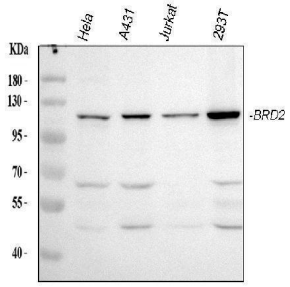
Anti-BRD2 Antibody Picoband® (A02412-1) Images



I-BET151 reduces Brd4 levels in the kidney of HN rats. (A) A rat model of HN was established and treated with I-BET151 as indicated in “Material and Methods.” After 3 weeks, kidneys were taken for immunoblot analysis for Brd2, Brd3, Brd4 or GAPDH. Expression levels of Brd2 (B) , Brd3 (C) , Brd4 (D) were quantified by densitometry analysis and then normalized with GAPDH. (E) Photomicrographs (original magnification, ×400) illustrate immunohistochemical Brd4 staining of kidney tissues. (F) Brd4 staining graphic presentation of quantitative data. Data are represented as the mean ± SEM. * $p < 0.05$; ** $p < 0.01$.Index in PubMed under a CC BY license. PMID: 33664670



Flow Cytometry analysis of 293T cells using anti-BRD2 antibody (A02412-1). Overlay histogram showing 293T cells stained with A02412-1 (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-BRD2 Antibody (A02412-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) 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 BRD2 using anti-BRD2 antibody (A02412-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human 293T 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-BRD2 antigen affinity purified polyclonal antibody (Catalog # A02412-1) at 0.5 ug/mL overnight at 4°C, 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 is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BRD2 at approximately 110 kDa. The expected band size for BRD2 is at 88 kDa.

IF analysis of BRD2 and Tubulin beta using anti-BRD2

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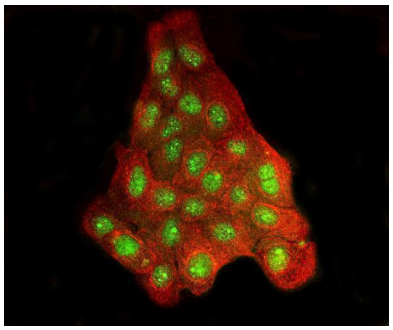

antibody (A02412-1) and anti-Tubulin beta antibody (M05613-4). BRD2 and Tubulin beta was detected in an immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-BRD2 Antibody (A02412-1) and mouse anti-Tubulin beta Antibody (M05613-4) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) were used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

1 Publications Citing This Product

1. PubMed ID: 10.3389/fphar.2021.636154, Pharmacologic Targeting of BET Proteins Attenuates Hyperuricemic Nephropathy in Rats

Visit bosterbio.com/anti-brd2-picoband-trade-antibody-a02412-1-boster.html to see all 1 publications.

Anti-BRD2 Antibody

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