BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-RBPJK/RBPJ Picoband® Antibody

Catalog Number: A00767-1

About RBPJ

Recombination signal binding protein for immunoglobulin kappa J region is a protein that in humans is encoded by the RBPJ gene. It is mapped to 4p15.2. The protein encoded by this gene is a transcriptional regulator important in the Notch signaling pathway. The encoded protein acts as a repressor when not bound to Notch proteins and an activator when bound to Notch proteins. It is thought to function by recruiting chromatin remodeling complexes containing histone deacetylase or histone acetylase proteins to Notch signaling pathway genes. Several transcript variants encoding different isoforms have been found for this gene, and several pseudogenes of this gene exist on chromosome 9.

Overview

Product Name	Anti-RBPJK/RBPJ Picoband® Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-RBPJK/RBPJ Picoband® Antibody catalog # A00767-1. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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 4mg Trehalose, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.
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	Q06330

Technical Details

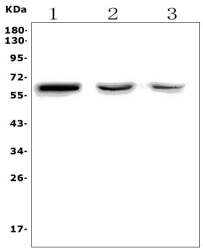
Immunogen	E.coli-derived human RBPJK/RBPJ recombinant protein (Position: K41-Q467).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	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.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

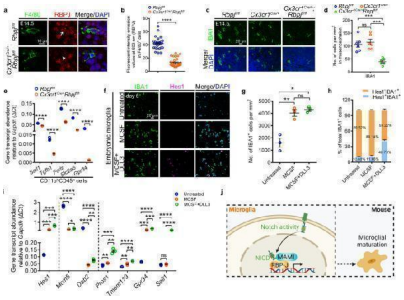
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, -

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-RBPJK/RBPJ Picoband® Antibody (A00767-1) Images



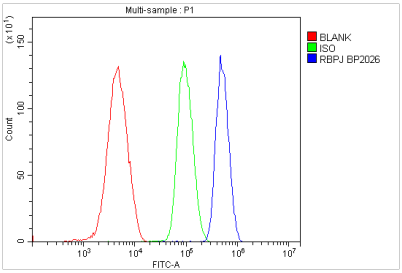
Western blot analysis of RBPJ using anti-RBPJ antibody (A00767-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: rat NRK whole cell lysates, Lane 3: mouse NIH3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-RBPJ antigen affinity purified polyclonal antibody (Catalog # A00767-1) 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 RBPJ at approximately 60KD. The expected band size for RBPJ is at 56KD.



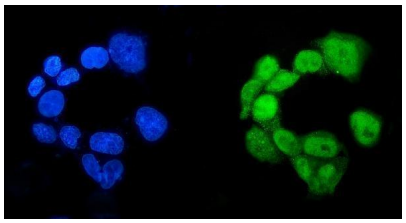
Notch activity promotes microglial development in vivo and in vitro. a , b Immunofluorescence (a) and fluorescent intensity emission values (b) of RBPJ (red) in F4/80 + (green) cells in the sagittal sections of E14.5 Rbpj fl/fl and Cx3cr1 cre/+ Rbpj fl/fl mice (n = 3 mice in each group). Each dot in (b) denotes one cell. Ten cells per mouse were quantified. The white arrow indicates the co-localized signals of RBPJ and F4/80, whereas white arrowhead point to the limited signals of RBPJ. c , d Immunofluorescence (c) and quantified cell density (d) of IBA1 + cells in the sagittal sections of E14.5 Rbpj fl/fl , Cx3cr1 cre/+ and Cx3cr1 cre/+ Rbpj fl/fl mice (n = 6 mice in each group). Each dot denotes one mouse. Three slices per mouse were quantified. e Transcriptional levels of Sall1 , Tgfb1 , Fcrls , Slc2a5 , and Gpr34 in CD11b hi CD45 lo cells from E14.5 Rbpj fl/fl and Cx3cr1 cre/+ Rbpj fl/fl mice mesencephalon. The data are from three independent experiments. Each dot represents an independent experiment. f Immunofluorescence of IBA1 and Hes1 in the embryonic microglia in vitro furnished with MCSF or additional DLL3 for 5 days. g Quantification of IBA1 + cell density in (f). Data were pooled from three independent experiments. Cultured IBA1 + cells in each experiment were from twenty E12.5 mice mesencephalon. Each dot represents individual experiment. h The percentage of Hes1 - IBA1 + or Hes1 + IBA1 + cells after cultured 5 days in (f). The number in each histogram indicates the average percentage. Data are pooled from three independent experiments. i Transcriptional levels of Hes1, Mcm5, Dab2 , Pros1 , Tmem119 , Gpr34 , and Sall1 in embryonic microglia after cultured for 5 days. The data were from three independent experiments. Each dot represents an independent experiment. j Schematic diagram of Notch activation in mouse microglial differentiation, created with

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

BioRender.com. Error bars, mean ± SEM. * P



Flow Cytometry analysis of HL-60 cells using anti-RBPJ antibody (A00767-1). Overlay histogram showing HL-60 cells stained with A00767-1 (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-RBPJ Antibody (A00767-1, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of RBPJK/RBPJ using anti-RBPJK/RBPJ antibody (A00767-1). RBPJK/RBPJ was detected in 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 5ug/mL rabbit anti-RBPJK/RBPJ Antibody (A00767-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Anti-RBPJK/RBPJ Antibody

For Research Use Only. Not for use in diagnostic procedures.