

Anti-BRSK2 Antibody Picoband®

Catalog Number: A05321-2

About BRSK2

BR serine/threonine-protein kinase 2 is an enzyme that in humans is encoded by the BRSK2 gene. BRSK2 was initially identified through a computer screen of the human genome and shows significant homology to the *C. elegans* neuronal cell polarity regulator SAD1. BRSK2 is expressed in the brain and to a lesser extent in the testes. BRSK2 is a member of the AMP-activated protein kinase subfamily and can be activated by the tumor suppressor kinase LKB1. More recently, it has been shown that both BRSK2 and the related protein BRSK1 are required for mammalian neuronal polarization. While BRSK1- and BRSK2-null mice were viable, double-mutant mice died within two hours of birth. Neurons from these mice showed uniformly-sized neurites as opposed to the normal long axon and multiple shorter dendrites. These neurites also displayed both axonal and dendritic markers. BRSK2 has also been shown to be an autoantigen in paraneoplastic limbic encephalitis. At least four isoforms of BRSK2 are known to exist.

Overview

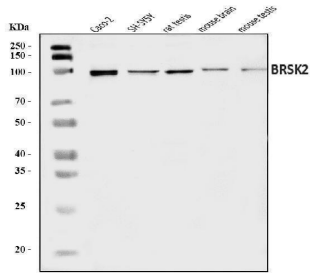
Product Name	Anti-BRSK2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-BRSK2 Antibody Picoband® catalog # A05321-2. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q8IWK3

Technical Details

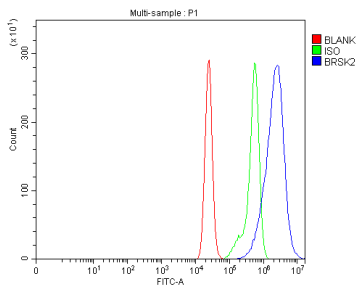
Immunogen	E.coli-derived human BRSK2 recombinant protein (Position: M250-P736).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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, 0.25-0.5 ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

Anti-BRSK2 Antibody Picoband® (A05321-2) Images



Western blot analysis of BRSK2 using anti-BRSK2 antibody (A05321-2). 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 CACO-2 whole cell lysates, Lane 2: human SH-SY5Y whole cell lysates, Lane 3: rat testis tissue lysates, Lane 4: mouse brain tissue lysates, Lane 5: mouse testis tissue 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-BRSK2 antigen affinity purified polyclonal antibody (Catalog # A05321-2) 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 BRSK2 at approximately 90 kDa. The expected band size for BRSK2 is at 90 kDa.



Flow Cytometry analysis of CACO-2 cells using anti-BRSK2 antibody (A05321-2). Overlay histogram showing CACO-2 cells stained with A05321-2 (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-BRSK2 Antibody (A05321-2, 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.

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Anti-BRSK2 Antibody

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