10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-BAG2 Antibody Picoband™ (monoclonal, 8F11G2)

Catalog # ABO16589

Product Information

Application	WB, FC
Primary Accession	O95816
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-BAG2 Antibody Picoband™ (monoclonal, 8F11G2) . Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 □g/ml.

Additional Information

Gene ID	9532
Other Names	BAG family molecular chaperone regulator 2, BAG-2, Bcl-2-associated athanogene 2, BAG2
Calculated MW	23772
Application Details	Western blot, 0.25-0.5 □g/ml, Human, Mouse Flow Cytometry, 1-3 □g/1x10^6 cells, Human
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Clone Names	Clone: 8F11G2
Immunogen	E.coli-derived human BAG2 recombinant protein (Position: M1-N211). Human BAG2 shares 93.4% amino acid (aa) sequence identity with mouse BAG2.
Purification	Immunogen affinity purified.
Storage	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.

Protein Information

Name	BAG2

Function Co-chaperone for HSP70 and HSC70 chaperone proteins. Acts as a nucleotide-exchange factor (NEF) promoting the release of ADP from the HSP70 and HSC70 proteins thereby triggering client/substrate protein release (PubMed:24318877, PubMed:9873016).

Background

BAG family molecular chaperone regulator 2 is a protein that in humans is encoded by the BAG2 gene. The predicted BAG2 protein contains 211 amino acids. The BAG domains of BAG1, BAG2, and BAG3 interact specifically with the Hsc70 ATPase domain in vitro and in mammalian cells. All 3 proteins bind with high affinity to the ATPase domain of Hsc70 and inhibit its chaperone activity in a Hip-repressible manner. The functional antagonisms displayed between BAG family proteins and Hip suggest that a proper balance of these 2 types of protein is required for achieving optimal cycles of substrate binding and release required for inducting conformational changes in proteins, with Hip promoting peptide substrate binding by Hsc70/Hsp70 and BAG family proteins promoting dissociation.

Images

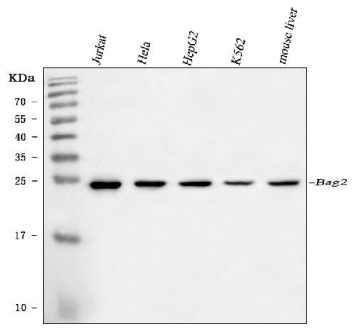

Figure 1. Western blot analysis of BAG2 using anti-BAG2 antibody (M04933-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Jurkat whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human HepG2 whole cell lysates,
Lane 4: human K562 whole cell lysates,
Lane 5: mouse liver 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 mouse anti-BAG2 antigen affinity purified monoclonal antibody (Catalog # M04933-2) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for BAG2 at approximately 24 kDa. The expected band size for BAG2 is at 24 kDa.

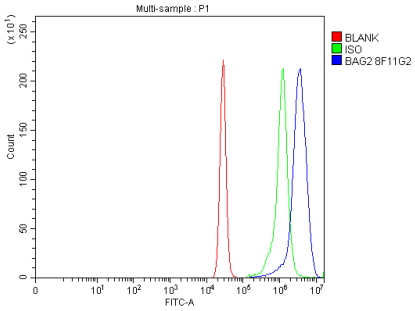

Figure 2. Flow Cytometry analysis of K562 cells using anti-BAG2 antibody (M04933-2).
Overlay histogram showing K562 cells stained with M04933-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-BAG2 Antibody (M04933-2, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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