

Anti-DUSP3 Picoband® Antibody

Catalog Number: A06135

About DUSP3

Dual specificity protein phosphatase 3 is an enzyme that in humans is encoded by the DUSP3 gene. It is mapped to 17q21.31. The protein encoded by this gene is a member of the dual specificity protein phosphatase subfamily. These phosphatases inactivate their target kinases by dephosphorylating both the phosphoserine/threonine and phosphotyrosine residues. They negatively regulate members of the mitogen-activated protein (MAP) kinase superfamily (MAPK/ERK, SAPK/JNK, p38), which are associated with cellular proliferation and differentiation. Different members of the family of dual specificity phosphatases show distinct substrate specificities for various MAP kinases, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. This gene maps in a region that contains the BRCA1 locus which confers susceptibility to breast and ovarian cancer. Although DUSP3 is expressed in both breast and ovarian tissues, mutation screening in breast cancer pedigrees and in sporadic tumors was negative, leading to the conclusion that this gene is not BRCA1.

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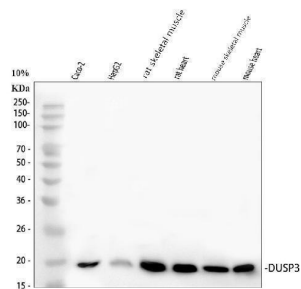
Overview

Product Name	Anti-DUSP3 Picoband® Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-DUSP3 Picoband® Antibody catalog # A06135. 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 Na2HPO4, 0.05mg NaN3.
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	P51452

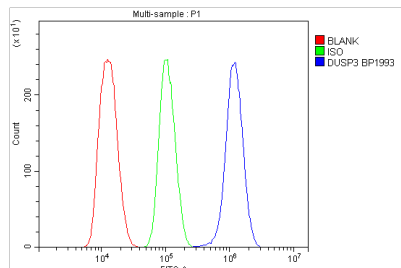
Technical Details

Immunogen	E.coli-derived human DUSP3 recombinant protein (Position: S4-P185).
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, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10⁶ cells, Human ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), validated for fixed cells only. Not validated for FACS or surface flow cytometry using live cells.

Anti-DUSP3 Picoband® Antibody (A06135) Images



Western blot analysis of DUSP3 using anti-DUSP3 antibody (A06135). 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 HepG2 whole cell lysates, Lane 3: rat skeletal muscle tissue lysates, Lane 4: rat heart tissue lysates, Lane 5: mouse skeletal muscle tissue lysates, Lane 6: mouse heart 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-DUSP3 antigen affinity purified polyclonal antibody (Catalog # A06135) 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 DUSP3 at approximately 20 kDa. The expected band size for DUSP3 is at 20 kDa.



Flow Cytometry analysis of THP-1 cells using anti-DUSP3 antibody (A06135). Overlay histogram showing THP-1 cells stained with A06135 (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-DUSP3 Antibody (A06135, 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.

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