

Anti-beta Actin Mouse Monoclonal Antibody

Catalog Number: M01263-4

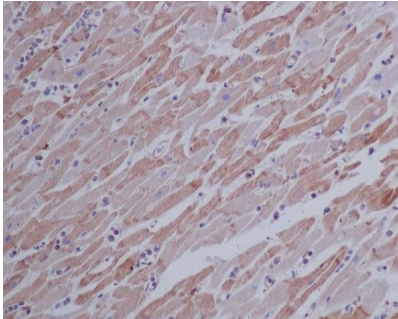
Overview

Product Name	Anti-beta Actin Mouse Monoclonal Antibody
Reactive Species	Chicken, Human, Mouse, Pig, Rabbit, Rat
Description	Boster Bio Anti-beta Actin Mouse Monoclonal Antibody catalog # M01263-4. Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat, Chicken, Rabbit.
Application	IF, IHC, ICC, WB
Clonality	Monoclonal 17A10
Formulation	Mouse IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	P60709

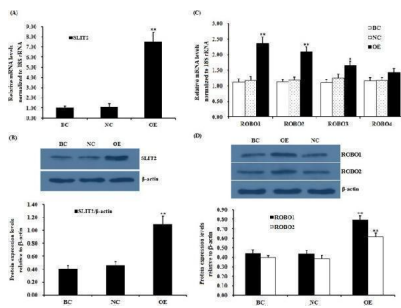
Technical Details

Immunogen	A synthesized peptide derived from human beta Actin
Isotype	IgG1
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB 1:3000-10000 IHC 1:100-1:200 ICC/IF 1:100-200

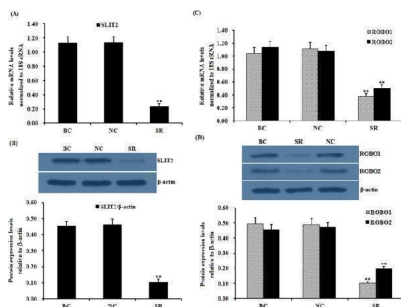
Anti-beta Actin Mouse Monoclonal Antibody (M01263-4) Images



Immunohistochemical analysis of paraffin-embedded human heart, using beta Actin Mouse Monoclonal Antibody.

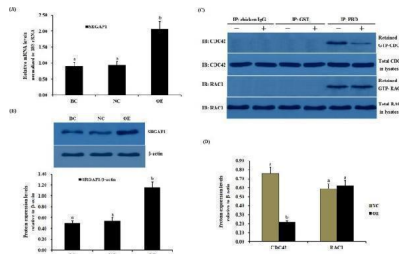


Effects of overexpressing SLIT2 on the expression of the ROBO1, ROBO2, ROBO3 and ROBO4 genes. The granulosa cells were transfected with a reconstructed pYr-adshuttle-4-SLIT2 vector, a pYr-adshuttle-4 empty vector (negative control) or no plasmid (blank control). (A) The expression of the SLIT2 gene before and after the GCs were transfected with the pYr-adshuttle-4-SLIT2 expression vector for 24 h was examined by qRT-PCR. The mRNA expression was normalized to that of the 18S rRNA gene; the values on the bar graphs represent the mean \pm SEM of 10 hens (n = 10) from a representative experiment. (B) The expression levels of the SLIT2 protein in the GCs before and after the transfection with the pYr-adshuttle-4-SLIT2 vector were detected by western blotting. beta-actin was used as a loading control. The blots were cropped, and the gels were run under the same experimental conditions. (C) The influence of the SLIT2 overexpression on the ROBO1, ROBO2, ROBO3 and ROBO4 mRNA abundance in the granulosa cells from the prehierarchal follicles (6 to 8 mm in diameter) was examined. (D) The effects of the SLIT2 overexpression on the protein levels of ROBO1 and ROBO2. For each group, the superscript symbol above the bar indicates that the difference was significant compared to the control group **P<0.01, *P<0.05. Index in PubMed under a CC BY license. PMID: 29907785

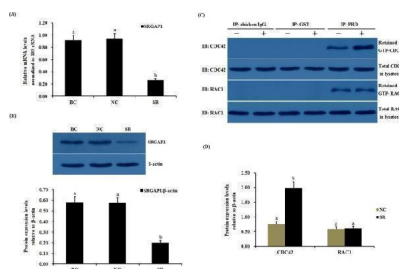


Effects of the SLIT2 knockdown on the expression of the ROBO1 and ROBO2 genes. The granulosa cells were transfected with the SLIT2-specific siRNA, scrambled siRNA (negative control) or no siRNA (blank control). (A) The expression of the SLIT2 gene in the GCs with or without the interference of the specific siRNA was determined by qRT-PCR. The mRNA expression was normalized to that of the 18S rRNA gene; the values of the bar graphs represent the mean \pm SEM of 10 hens (n = 10) from a representative experiment. (B) The expression levels of the SLIT2 protein in the GCs with or without the siRNA interference were detected by western blotting. beta-actin was used as a loading control. (C) The influence of the SLIT2 knockdown on the ROBO1 and ROBO2 mRNA abundance in the granulosa cells. (D) The effects of the SLIT2 knockdown on the protein levels of ROBO1 and ROBO2. All blots were

cropped, and the gels were run under the same experimental conditions. For each group, the superscript above the bar indicates that the difference was significant compared to the control group **P<0.01, *P<0.05. Index in PubMed under a CC BY license. PMID: 29907785

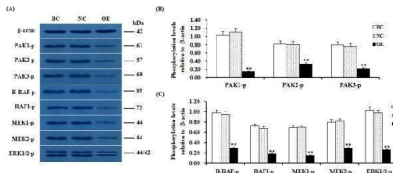


Effects of the overexpressed SLIT2 on SRGAP1 expression and GTPase activity of CDC42 and RAC1 in GCs. The granulosa cells were transfected with the reconstructed pYr-adshuttle-4-SLIT2 plasmids, a pYr-adshuttle-4 empty vector (negative control) or no plasmid (blank control). (A) The expression of the SRGAP1 gene before and after the GCs were transfected with the pYr-adshuttle-4-SLIT2 expression vector for 24 h was examined by qRT-PCR. The mRNA expression was normalized to that of the 18S rRNA gene; the values on the bar graphs represent the mean \pm SEM of 10 hens (n = 10) from a representative experiment. (B) The expression levels of the SRGAP1 protein in the GCs before and after the transfection with the pYr-adshuttle-4-SLIT2 vector was detected by western blotting. beta-actin was used as a loading control. (C) The coimmunoprecipitation of CDC42 and RAC1 with the recombinant GST-PBD in vitro . The stimulation by the SLIT2 overexpression of GTP-bound CDC42 and RAC1 in the granulosa cells from the prehierarchal follicles (6 to 8 mm in diameter) was examined by western blotting after performing a GST pull-down assay in which cell lysates were incubated with glutathione S-transferase (GST) and the recombinant GST-PBD. The immunoprecipitation (IP) with the PBD antibody was revealed by immunoblotting (IB) using monoclonal anti-CDC42 or anti-RAC1 antibodies (in the right-hand column). -, negative control; +, SLIT2 overexpressed group. All blots were cropped, and the gels were run under the same experimental conditions. (D) The effects of the SLIT2 overexpression on the expression levels of GTP-bound CDC42 and RAC1 were detected by western blotting. beta-actin was used as a loading control. For each group, the different superscript above the bar indicates that the difference was significant (P<0.01). Index in PubMed under a CC BY license. PMID: 29907785

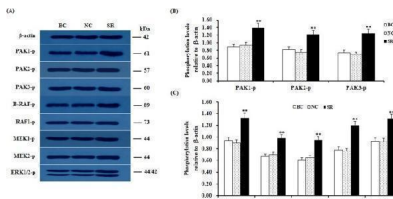


Effects of silencing SLIT2 on SRGAP1 expression and the GTPase activity of CDC42 and RAC1 in GCs. The granulosa cells were transfected with specific siRNAs targeting the SLIT2 gene, scrambled siRNA (negative control) or no siRNA (blank control). (A) The expression of the SRGAP1 gene before and after the GCs were transfected with the specific siRNA for 48 h was examined by qRT-PCR. The mRNA expression was normalized to that of the 18S rRNA gene; the values on the bar graphs represent the mean \pm SEM of 10 hens (n = 10) from a representative experiment. (B) The expression levels of the SRGAP1 protein in the GCs with and without specific siRNA interference (RNAi) was detected by western blotting. beta-actin was used as a loading control. (C) The immunoprecipitation (IP) with the PBD antibody was revealed by immunoblotting (IB) using monoclonal anti-CDC42 or anti-RAC1 antibodies (in the right-hand column).

–, negative control; +, SLIT2 silencing group. All blots were cropped, and the gels were run under the same experimental conditions. (D) The expression levels of GTP-bound CDC42 and RAC1 under SLIT2 silencing were determined by western blotting. beta-actin was used as a loading control. For each group, the different superscript above the bar indicates that the difference was significant (P<0.01). Index in PubMed under a CC BY license. PMID: 29907785

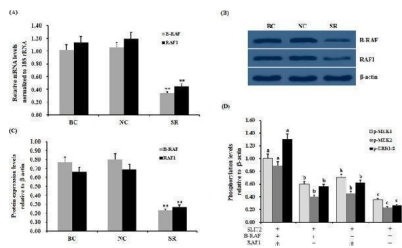


SLIT2 overexpression-induced reduction in the phosphorylation levels of PAKs, RAFs and ERK1/2. The granulosa cells were transfected with the reconstructed pYr-adshuttle-4-SLIT2 plasmids, a pYr-adshuttle-4 empty vector (negative control) or no plasmid (blank control). (A) The immunoprecipitants were analyzed by western blotting for an in vitro phosphorylation assay. beta-actin was used as a loading control. The blots were cropped, and the gels were run under the same experimental conditions. (B , C) The blotting signal intensity was quantified densitometrically after phosphorimaging (shown in A) and normalized for loading by comparison to the signal of beta-actin. The signal intensity of the targeted proteins or phosphorylated proteins was expressed as a ratio to the beta-actin signal in arbitrary units (n = 5 per mean ± SEM). Five independent experiments were carried out in triplicate. The results are representative of at least three independent experiments. significance is marked with different superscript symbols **P<0.01, *P<0.05. Index in PubMed under a CC BY license. PMID: 29907785



Knockdown of SLIT2 enhances the phosphorylation levels of PAKs, RAFs and ERK1/2. The granulosa cells were transfected with the SLIT2-specific siRNA, scrambled siRNA (negative control) or no siRNA (blank control). (A) An in vitro phosphorylation assay was performed by western blotting. beta-actin was used as a loading control. The blots were cropped, and the gels were run under the same experimental conditions. (B , C) The blotting signal intensity was quantified densitometrically after phosphorimaging (shown in A) and normalized for loading by comparison to the signal of beta-actin. The signal intensity of the targeted proteins or phosphorylated proteins was expressed as a ratio to the beta-actin signal in arbitrary units (n = 5 per mean ± SEM). Five independent experiments were carried out in triplicate. The results are representative of at least three independent experiments. The statistical significance is marked with different superscript symbols **P<0.01, *P<0.05. Index in PubMed under a CC BY license. PMID: 29907785

Effect of RAF RNAi on the SLIT2 overexpression-induced inhibition of the phosphorylation levels of MEK1/2 and ERK1/2. The granulosa cells were transfected with B-RAF and/or RAF1 specific siRNA, scrambled siRNA (negative control) or no siRNA (blank control). (A) The expression of the B-RAF and RAF1 genes before and after the GCs were



transfected with specific siRNA for 48 h was examined by qRT-PCR. The mRNA expression was normalized to that of the 18S rRNA gene; the values on the bar graphs represent the mean \pm SEM of 10 hens ($n = 10$). (B) The immunoprecipitants were analyzed by western blotting. beta-actin was used as a loading control. The blots were cropped, and the gels were run under the same experimental conditions. (C) The protein expression levels of B-RAF and RAF1 in the GCs with and without specific siRNA interference were detected by western blotting and normalized for loading by comparison to the signal of beta-actin. (D) The granulosa cells were transfected with the reconstructed pYr-adshuttle-4-SLIT2 plasmids and co-infected with or without B-RAF and RAF1 specific siRNA. The negative controls refer to the phosphorylation levels of MEK1/2 and ERK1/2 shown in Fig. . - , neither SLIT2 overexpression nor knockdown of RAFs ; + , SLIT2 overexpression or knockdown of RAFs . The signal intensity of the phosphorylated proteins was expressed as a ratio to the beta-actin signal in arbitrary units ($n = 5$ per mean \pm SEM). The statistical significance is indicated with different superscript characters ($P < 0.005$). Index in PubMed under a CC BY license. PMID: 29907785

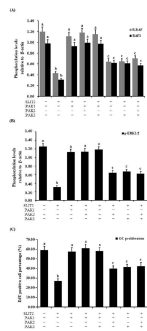
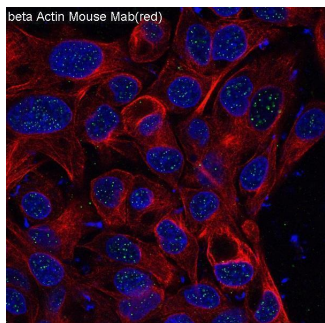
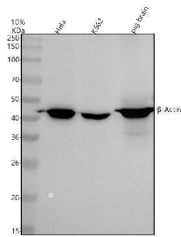


Figure 11 Regulation of the phosphorylation of B-RAF, RAF1, ERK1/2 and GC proliferation through the kinase PAKs. The granulosa cells were transfected with the reconstructed pYr-adshuttle-4-SLIT2 plasmids and co-infected with or without PAK1 , PAK2 and PAK3 specific siRNA. (A) The phosphorylation levels of B-RAF and RAF1 proteins in the GCs with or without the specific siRNA interference were detected by western blotting and normalized for loading by comparison to the signal of beta-actin. (B) The phosphorylation levels of the ERK1/2 proteins in the GCs with and without the specific siRNA interference were detected by western blotting and normalized for loading by comparison to the signal of beta-actin. The signal intensity of the phosphorylated proteins was expressed as a ratio to the beta-actin signal in arbitrary units ($n = 10$ per mean \pm SEM). (C) Proliferation levels of the GCs with and without the specific siRNA interference were examined using an EdU Cell Proliferation Assay Kit. The statistical significance is indicated with different superscript characters ($P < 0.01$). Index in PubMed under a CC BY license. PMID: 29907785

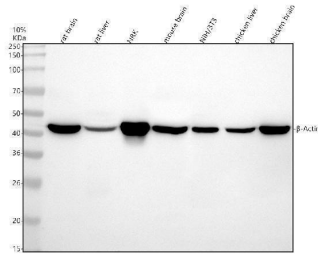


Immunofluorescent analysis of HepG2 cells, using beta Actin mAb.

Western blot analysis of beta-Actin using anti-beta-Actin antibody (M01263-4). Electrophoresis was performed on a



10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 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 K562 whole cell lysates, Lane 3: pig brain 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-beta-Actin antigen affinity purified monoclonal antibody (M01263-4) at 1:5000 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 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for beta-Actin at approximately 42 kDa. The expected band size for beta-Actin is at 42 kDa.



Western blot analysis of beta-Actin using anti-beta-Actin antibody (M01263-4). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 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 K562 whole cell lysates, Lane 3: pig brain 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-beta-Actin antigen affinity purified monoclonal antibody (M01263-4) at 1:5000 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 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for beta-Actin at approximately 42 kDa. The expected band size for beta-Actin is at 42 kDa.

3 Publications Citing This Product

1. PubMed ID: 10.1007/s11596-009-0117-1, Effect of RGD-modified silk material on the adhesion and proliferation of bone marrow-derived mesenchymal stem cells
2. PubMed ID: 10.1016/j.urology.2018.06.006, High Concentration of Calcium Promotes Mineralization in NRK-52E Cells Via Inhibiting the Expression of Matrix Gla Protein
3. PubMed ID: 10.1038/srep42465, pH-sensitive micelles for the intracellular co-delivery of curcumin and Pluronic L61 unimers for synergistic reversal effect of multidrug resistance

Visit bosterbio.com/anti-beta-actin-mouse-monoclonal-antibody-m01263-4-boster.html to see all 3 publications.

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