BOSTER
antibody and ELISA experts

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

Anti-DUSP4 Mouse Monoclonal Antibody [Clone ID: OTI7C11]

Catalog Number: M30480

Overview

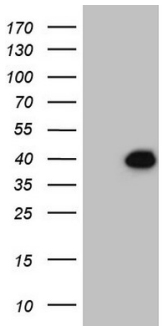
Product Name	Anti-DUSP4 Mouse Monoclonal Antibody [Clone ID: OTI7C11]
Reactive Species	Human, Mouse, Rat
Description	Boster Bio DUSP4 mouse monoclonal antibody,clone OTI7C11. Catalog# M30480. Tested in WB. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Monoclonal OTI7C11
Formulation	PBS (pH 7.3) containing 1% stabilizing protein, 50% glycerol and 0.02% sodium azide. 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 as received.
Host	Mouse
Uniprot ID	Q13115

Technical Details

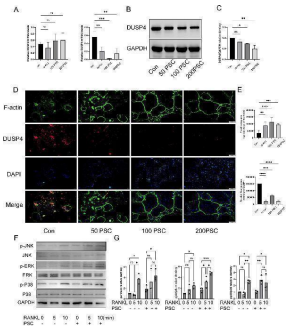
Immunogen	Human recombinant protein fragment corresponding to amino acids 1-257 of human DUSP4 (NP_476499) produced in E.coli.
Isotype	IgG1
Concentration	1 mg/ml
Purification	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Suggested Dilutions	WB: 1:2000

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

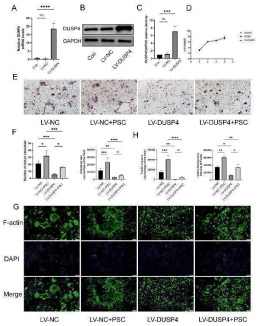
Anti-DUSP4 Mouse Monoclonal Antibody [Clone ID: OTI7C11] (M30480) Images



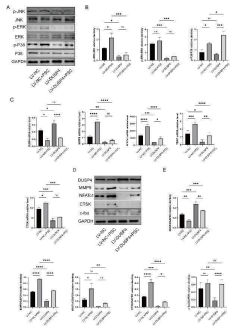
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY DUSP4 (Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DUSP4 (1:2000).



PSC intervention downregulates DUSP4 and upregulates the MAPK signaling pathway. (A) mRNA expression levels of DUSP2 and DUSP4 following different doses of PSC intervention. (B) Protein expression levels of DUSP4 after different doses of PSC intervention. (C) Quantification of DUSP4 protein levels shown in (B) . (D) Visualization of F-actin ring formation and DUSP4 expression in osteoclasts after different doses of PSC intervention. Green: F-actin; red: DUSP4; blue: DAPI. Magnification ×40. (E) Quantification of the F-actin ring area and the absolute and relative fluorescence intensity of DUSP4 shown in (D) . Data represent three independent experiments. ns, not significant; * p



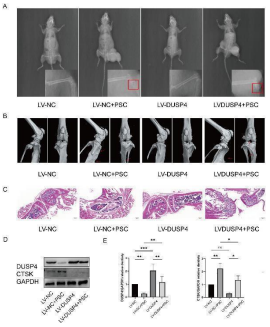
Overexpression of DUSP4 affects osteoclast formation. (A) mRNA expression levels of DUSP4 in control, lentiviral-transfected null, and DUSP4-overexpression groups. (B) Protein levels of DUSP4 in the same groups. (C) Quantification of (B) . (D) Cell viability assay in the same groups. (E) TRAP staining of osteoclasts in control and DUSP4-overexpression groups after PSC intervention. Magnification ×40. (F) Quantification of the area occupied by TRAP-positive cells and the number of TRAP-positive cells shown in (E) . (G) F-actin ring staining in control and DUSP4-overexpression groups after PSC intervention green: F-actin; blue: DAPI. Magnification ×40. (H) Quantification of the F-actin ring area and fluorescence intensity shown in (G) . Data represent three independent experiments, and significance was determined using one-way ANOVA. ns, no significance; * p



Effects of DUSP4 on the MAPK pathway and osteoclast-related genes. (A) Western blot analysis showing changes in MAPK signaling pathway components (p-JNK, p-ERK, and p-p38) in osteoclasts after PSC intervention in control and DUSP4-overexpression groups. (B) Quantification of MAPK pathway phosphorylation levels in osteoclasts from control and DUSP4-overexpression groups, as shown in (A) . (C) mRNA expression levels of osteoclast-related proteins (DUSP4, MMP9, NFATc1, TRAP, and CTSK) after PSC intervention in control and DUSP4-overexpression groups.

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

(D) Western blot analysis of osteoclast-related proteins (DUSP4, MMP9, NFATc1, CTSK, and c-fos) after PSC intervention in control and overexpression groups. (E) Quantification of osteoclast-related proteins expression levels in (D) . Data represent three independent experiments, and significance was determined using one-way ANOVA. ns, no significance; * p



DUSP4 inhibits osteoclasts and attenuates bone destruction in osseous echinococcosis. (A) X-ray examination of long bones from mice treated with empty vector, lentiviral DUSP4, or left untreated in the affection of PSC after 6 months, with red rectangle indicating cyst. (B) Micro-CT images of long bones from each treatment group, with red arrows indicating bone defects. (C) HE staining of bone tissue sections from each treatment group. Magnification ×20. (D) Western blot analysis of osteoclast-related proteins (DUSP4 and CTSK) after PSC intervention in control and DUSP4-overexpression groups. (E) Quantification of osteoclast-related protein expression levels in osteoclasts from control and DUSP4-overexpression groups, as shown in (D) . Data are presented as mean ± SD from five mice per group. * p

Anti-DUSP4 Mouse Monoclonal Antibody [Clone ID: OTI7C11]

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