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Anti-Ephrin type-B receptor 4 EphB4 Antibody

Catalog Number: A00690

Overview

Product Name	Anti-Ephrin type-B receptor 4 EphB4 Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Ephrin type-B receptor 4 EphB4 Antibody catalog # A00690. Tested in WB, IHC, IF, ELISA applications. This antibody reacts with Human, Mouse.
Application	ELISA, IF, IHC, WB
Clonality	Polyclonal
Formulation	Liquid in PBS containing 50% glycerol, 0.5% stabilizing protein 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 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	Rabbit
Uniprot ID	P54760

Technical Details

Immunogen	The antiserum was produced against synthesized peptide derived from human EPHB4. AA range:571-620
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Liquid
Concentration	1 mg/ml
Purification	Immunogen affinity purified
Suggested Dilutions	WB 1:500-1:2000 IHC 1:100-1:300 IF 1:200-1:1000 ELISA 1:20000

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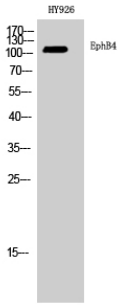
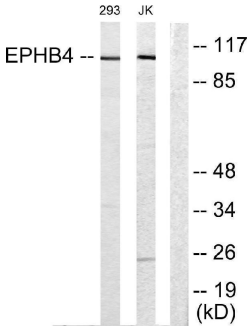
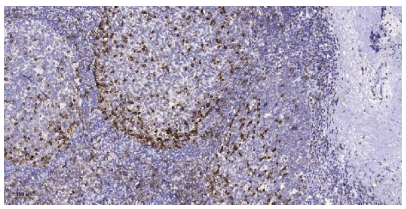
Anti-Ephrin type-B receptor 4 EphB4 Antibody (A00690) Images



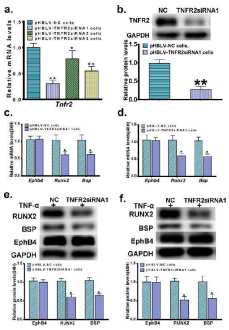
Western Blot analysis of HY926 cells using EphB4 Polyclonal Antibody diluted at 1:2000



Western blot analysis of lysates from Jurkat and 293 cells, using EPHB4 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200 (4° overnight). 2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min).



The effect of the lentivirus-mediated shRNA interference of TNFR2 on TNF-alpha-stimulated EphB4 expression and osteogenic differentiation. a MC3T3-E1 cells stably transduced with lentiviral particles were selected with puromycin and named as pHBLV-TNFR2siRNA1 cells, pHBLV-TNFR2siRNA2 cells, pHBLV-TNFR2siRNA3 cells and pHBLV-NC cells, respectively. The mRNA levels of Tnfr2 were determined in these cells, among which the pHBLV-TNFR2siRNA1 cells displayed the highest TNFR2 gene silencing efficiency and were selected to continue the following studies. b TNFR2 protein levels in pHBLV-TNFR2siRNA1 cells and pHBLV-NC cells. c , d mRNA levels of Ephb4 , Runx2 and Bsp in pHBLV-TNFR2siRNA1 cells and pHBLV-NC cells cultured in the osteogenic induction medium supplemented with 0.5 ng/ml TNF-alpha for 24 h (c) or 48 h (d). e , f Protein levels of EphB4, RUNX2 and BSP in pHBLV-TNFR2siRNA1 cells and pHBLV-NC cells cultured in the osteogenic induction medium supplemented with 0.5 ng/ml TNF-alpha for 24 h (e) or 48 h (f). *, p

The effect of the impaired binding between TNF-alpha and TNFR2 on TNF-alpha-stimulated EphB4 expression and

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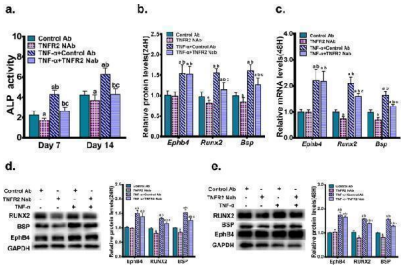
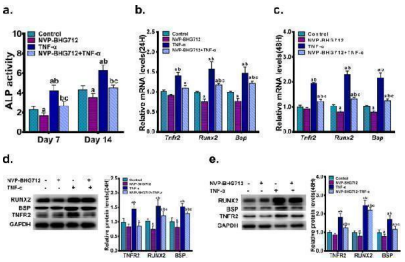
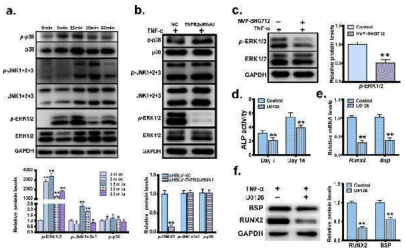


osteogenic differentiation. MC3T3-E1 cells were treated with an anti-mouse TNFR2/ CD120b/TNFRSF1B neutralizing antibody (TNFR2 NAb) at the concentration of 0.2 ug/ml, and were cultured in the osteogenic induction medium supplemented with or without 0.5 ng/ml TNF-alpha. Cells treated with 0.2 ug/ml of the normal rabbit IgG negative control antibody (control Ab) served as negative controls. (a) ALP activities were determined 7d or 14d after the treatment. (b, c) mRNA levels of Ephb4 , Runx2 and Bsp were determined after 24 h (b) or 48 h (c). (d, e) Protein levels of EphB4, RUNX2 and BSP were determined after 24 h (d) or 48 h (e). a, p



The effect of inhibited EphB4 forward signaling on TNF-alpha-stimulated TNFR2 expression and osteogenic differentiation. (a) A potent inhibitor of EphB4 auto-phosphorylation, NVP-BHG712, was used to suppress EphB4 forward signaling. MC3T3-E1 cells were pretreated with 200 nM NVP-BHG712 in the regular culture medium for 1 h. Cells were then incubated in osteogenic induction medium supplemented with 200 nM NVP-BHG712 and/or 0.5 ng/ml TNF-alpha for 7d or 14d. MC3T3-E1 cells cultured in osteogenic induction medium served as controls. The ALP activities were determined. (b, c) MC3T3-E1 cells were pretreated with 200 nM NVP-BHG712 for 1 h in the regular culture medium, and then incubated in osteogenic induction medium supplemented with 200 nM NVP-BHG712 and/or 0.5 ng/ml TNF-alpha. Cells cultured in osteogenic induction medium served as controls. mRNA levels of Tnfr2 , Runx2 and Bsp were determined after 24 h (b) or 48 h (c) of incubation. (d, e) MC3T3-E1 cells were pretreated with 200 nM NVP-BHG712 for 1 h in the regular culture medium, and then incubated in osteogenic induction medium supplemented with 200 nM NVP-BHG712 and/or 0.5 ng/ml TNF-alpha. Cells cultured in osteogenic induction medium served as controls. Protein levels of TNFR2, RUNX2 and BSP were determined after 24 h (d) or 48 h (e) of incubation. a, p



EphB4, TNFR2 and MAPK signaling pathways comprise a signaling axis to mediate the positive effect of TNF-alpha on osteogenic differentiation. a Levels of p38, p -p38, ERK1/2, p -ERK1/2, JNK1 + 2 + 3 and p -JNK1 + 2 + 3 in MC3T3-E1 cells treated with TNF-alpha for 0 min, 5 min, 15 min, 30 min and 60 min. b Levels of p38, p -p38, ERK1/2, p -ERK1/2, JNK1 + 2 + 3 and p -JNK1 + 2 + 3 in the pHBLV-TNFR2siRNA1 cells and the pHBLV-NC cells treated with or without 0.5 ng/ml TNF-alpha in regular culture medium for 15 min. c MC3T3-E1 cells were pretreated with or without 200 nM NVP-BHG712 in the regular culture medium for 1 h, and then 0.5 ng/ml TNF-alpha was added into the medium. The cells were incubated for another 15 min. Levels of ERK1/2 and p -ERK1/2 were determined. d-f MC3T3-E1 cells were cultured in the regular culture medium and pretreated with the ERK inhibitor U0126 (10 uM) for 1 h. The culture medium was then switched to the osteogenic induction medium supplemented with 0.5 ng/ml TNF-alpha and U0126 (10 uM). Cells treated without U0126 (10 uM) served as controls. ALP activities were determined 7d or 14d after the treatment (d). mRNA levels

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(e) and protein levels (f) of BSP and RUNX2 were determined 3 days after the treatment. *, p

1 Publications Citing This Product

1. PubMed ID: 10.1186/s12860-020-00273-2, EphB4/ TNFR2/ERK/MAPK signaling pathway comprises a signaling axis to mediate the positive effect of TNF-alpha on osteogenic differentiation.

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