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Anti-CD86/B7 2 Rabbit Monoclonal Antibody

Catalog Number: M00220-1

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Overview

Product Name	Anti-CD86/B7 2 Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CD86/B7 2 Rabbit Monoclonal Antibody catalog # M00220-1. Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Monoclonal BFF-3
Formulation	Rabbit 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	Rabbit
Uniprot ID	P42081

Technical Details

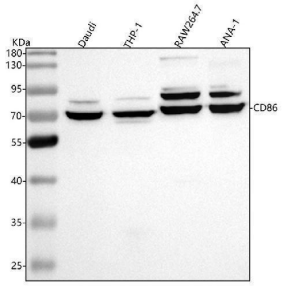
Immunogen	A synthesized peptide derived from human CD86
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB, 1:500-2000

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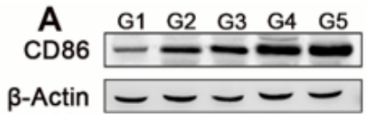
	IHC, 1:50-200 ICC/IF, 1:50-200 IP, 1:20 FC, 1:20

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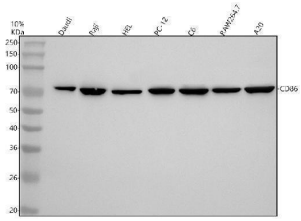
Anti-CD86/B7 2 Rabbit Monoclonal Antibody (M00220-1) Images



Western blot analysis of CD86 using anti-CD86 antibody (M00220-1). 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 Daudi whole cell lysates, Lane 2: human THP-1 whole cell lysates, Lane 3: mouse RAW264.7 whole cell lysates, Lane 4: mouse ANA-1 whole cell 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-CD86 antigen affinity purified monoclonal antibody (Catalog # M00220-1) at 1:1000 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 CD86 at approximately 70 kDa. The expected band size for CD86 is at 38 kDa.



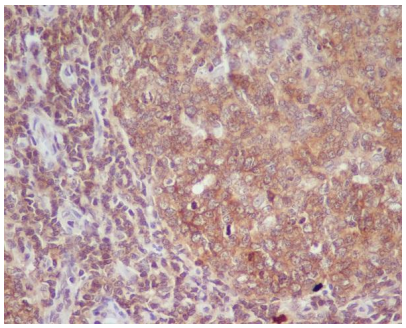
Western blot analysis of CD86 using anti-CD86 antibody (A04887-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1-5: mouse lung cancer tissue. 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-CD86 antigen affinity purified polyclonal antibody (A04887-1) at 1:2000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a (HRP)-conjugated Anti-Rabbit IgG Secondary Antibody for 1 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. The expected band size for CD86 is at 38 kDa.



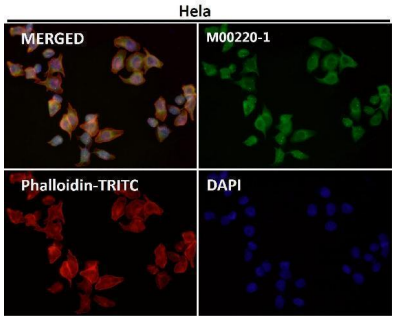
Western blot analysis of CD86 using anti-CD86 antibody (M00220-1). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Daudi whole cell lysates, Lane 2: human Raji whole cell lysates, Lane 3: human HEL whole cell lysates, Lane 4: rat PC-12 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse RAW264.7 whole cell lysates, Lane 7: mouse A20 whole cell 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

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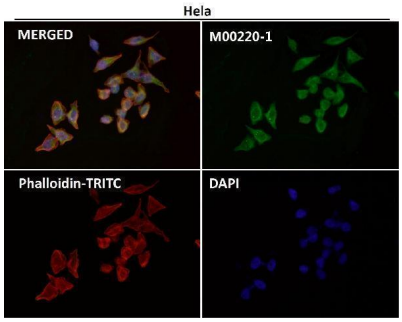
with rabbit anti-CD86 antigen affinity purified monoclonal antibody (M00220-1) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for CD86 at approximately 72 kDa. The expected band size for CD86 is at 38 kDa.



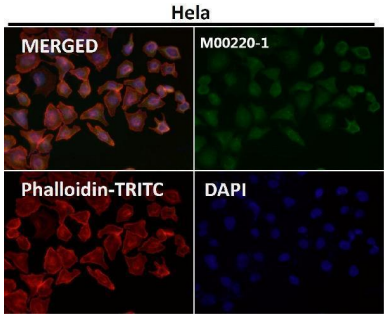
Immunohistochemical analysis of paraffin-embedded human tonsil, using CD86 Antibody .



Immunofluorescent analysis using the Antibody at 1:50 dilution.



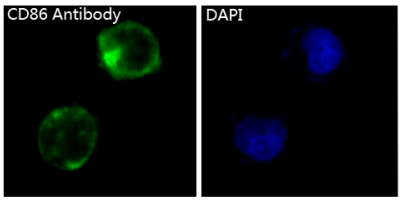
Immunofluorescent analysis using the Antibody at 1:50 dilution.

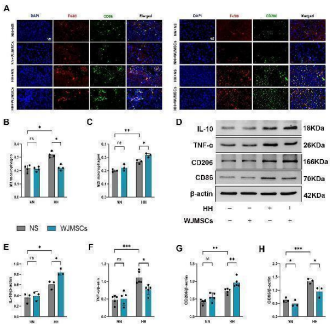


Immunofluorescent analysis using the Antibody at 1:150 dilution.

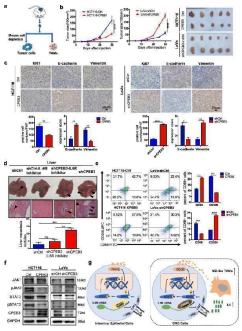
Immunofluorescent analysis of K562 cells, using CD86 Antibody .

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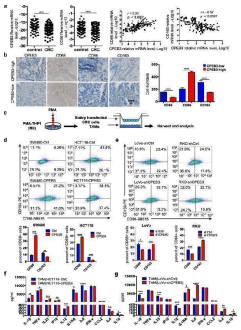


WJMSCs inhibited pro-inflammatory macrophages and promoted anti-inflammatory macrophages in RV. (A) Representative images showed the CD86 + pro-inflammatory macrophages (green) and CD206 + anti-inflammatory macrophages (green) in each group. The nuclei were stained with DAPI (blue), and macrophages were stained with F4/80 (red). Scale bar, 20um. (B–C) The percentage of CD86 + or CD206 + cells were calculated by Image-Pro Plus. (D–H) The protein level of CD86, CD206, TNF-alpha and IL-10 were measured by western blot, and quantification of the relative expression in the bands in different groups was calculated by Image-Pro Plus. All data were analyzed by two-way analysis of variance (ANOVA). Values are expressed as mean ± SD (n = 3-5). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. ns, not significant; HH, hypobaric hypoxia; NN, normobaric normoxia; IL-10, interleukin 10; TNF-alpha, tumor necrosis factor alpha. NS, neutral saline; WJMSCs, Wharton's jelly-derived mesenchymal stem cells.Index in PubMed under a CC BY license. PMID: 40547034

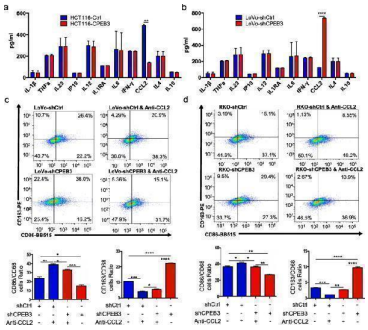


CPEB3 attenuates tumorigenesis and TAM polarization in vivo (a) Schematic of the procedure for separating tumor cells and TAMs. (b) HCT116 cells were stably infected with Ctrl and CPEB3 lentivirus, and LoVo cells were stably infected with shCtrl and shCPEB3 sequences. Tumorigenesis assay of Balb/c nude mice subcutaneously injected with HCT116-Ctrl/CPEB3 cells and LoVo-shCtrl/shCPEB3 cells (n = 20). Representative photos of tumors from mice in various groups. (c) IHC staining of Ki67 positive cells was counted per high-power field (PHF), while E-cadherin and vimentin expression scores were counted in tumor tissues in a xenograft model; error bars, SEM. (d) The mice with intra-spleen injection of LoVo-shCtrl/shCPEB3 cells were treated with tocilizumab (5 mg/kg) weekly via intraperitoneally injection. The number of liver metastatic sites (indicated by arrows) was counted under the microscope; error bars, SEM. (e) Macrophages were separated from murine tumor tissues using Percoll-layered liquid. Surface expression of CD86 and CD163 was detected in macrophages using flow cytometry. The percentage of CD86 + or CD163 + cells in macrophages was reported using error bars and SEM. (f) Expression of JAK1, pJAK1, STAT3, and pSTAT3 in the tumor tissues of the two groups were analyzed by western blot analysis. (g) Schematic overview of the mechanisms by which CPEB3 modulate TAM polarization and inhibit colorectal cancer EMT. ** $P < 0.01$; *** $P < 0.001$; **** $P < 0.0001$ Index in PubMed under a CC BY license. PMID: 32653013

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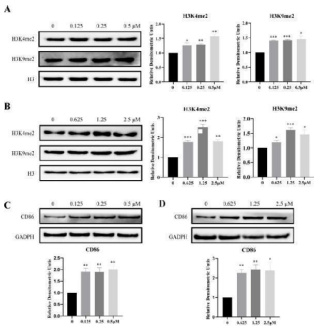
Decreased CPEB3 in human CRC correlates with low CD86 + TAM content and high CD163 + TAM content (a) The expression of CPEB3 and CD86 in 82 pairs of CRC tissues and adjacent non-tumor tissues was detected using qRT-PCR. Correlation between CPEB3 and CD86 or CD163 expression levels in 82 colorectal cancer tissues; error bars, SEM. (b) The protein expression of CPEB3, CD68, CD86, and CD163 in a human colorectal cancer tissue array was detected by IHC staining. Representative photos are shown (400× magnification). The number of CD68 + , CD86 + and CD163 + cells per high-power field in tissues from colorectal cancer patients with different levels of CPEB3 expression; error bars, SEM. (c) Schema for an in vitro model of stably transfected CRC cells co-cultured with TAMs. (d) Flow cytometry was used to explore the surface expression of CD86 and CD163 in SW480-Ctrl/CPEB3 and HCT116-Ctrl/CPEB3 cells; error bars, SEM. (e) Flow cytometry was used to explore the surface expression of CD86 and CD163 in LoVo-shCtrl/shCPEB3 and RKO-shCtrl/shCPEB3 cells; error bars, SEM. (f) We measured the expression of the respective inflammatory cytokines in cell culture supernatants of TAMs co-cultured HCT116-Ctrl/CPEB3 cells using ProcartaPlex combinable panels; error bars, SEM. (g) We measured the expression of the respective inflammatory cytokines in cell culture supernatants of TAM-co-cultured LoVo-shCtrl/shCPEB3 cells using ProcartaPlex combinable panels; error bars, SEM; ns, not significant; * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$; **** $P < 0.0001$ Index in PubMed under a CC BY license. PMID: 32653013



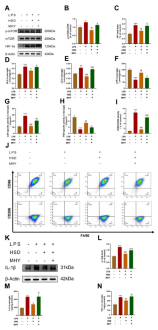
CPEB3 modulates CCL2 secretion in CRC cell supernatants to regulate TAM polarization (a) We measured the expression of the respective inflammatory cytokines in cell culture supernatants of HCT116-Ctrl/CPEB3 cells by ProcartaPlex combinable panels; error bars, SEM. (b) We measured the expression of the respective inflammatory cytokines in the supernatants of LoVo-shCtrl/shCPEB3 cells by ProcartaPlex combinable panels; error bars, SEM. (c) THP-1 macrophages were co-cultured with LoVo-shCtrl/shCPEB3 with or without CCL2-neutralizing antibody (1 ug/mL) for 24 h. Flow cytometry was used to explore the surface expression of CD86 and CD163 in the differentiated macrophages; error bars, SEM. (d) THP-1 macrophages were co-cultured with RKO-shCtrl/shCPEB3 cells with or without a CCL2-neutralizing antibody (1 ug/mL) for 24 h. Flow cytometry was used to explore the surface expression of CD86 and CD163 in the differentiated macrophages. Error bars, SEM. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$; **** $P < 0.0001$ Index in PubMed under a CC BY license. PMID: 32653013

Sanguinarine increased cellular levels of H3K4me2 and H3K9me2 and up-regulated the expression of CD86 in NSCLC cell lines. (A) and (B) Expression of H3K4me2 and H3K9me2 in H1975 and H1299 cells treated with sanguinarine for 48 hr, respectively, with H3 as loading control; (C) and (D) The expression of CD86 was detected, GADPH was used as a loading control. Data are the mean ± SEM of three independent experiments. * $P < 0.05$, ** P

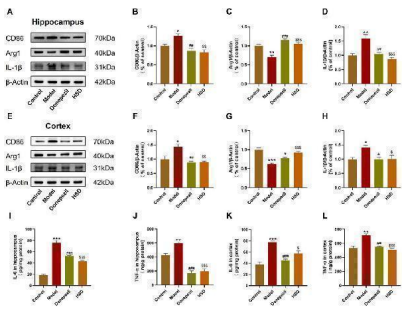
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<0.01, *** P <0.005 NSCLC: Non-small cell lung cancerIndex in PubMed under a CC BY license. PMID: 35949313



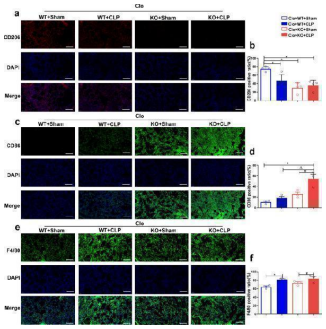
The expression levels of p-mTOR/mTOR ratio, HIF-1alpha, and IL-1beta in BV2 cells tested by western blot, the levels of GLU, LD, ATP, LDH and PDH quantified by biochemical test kit and the levels of polarization biomarkers of CD86 and CD206 detected by flow cytometry, the expression levels of IL-6 and TNF-alpha in BV2 cells tested by ELISA. (A) Blotting of p-mTOR, mTOR and HIF-1alpha protein in BV2 cells in each group; (B, C) Expression levels of p-mTOR/mTOR ratio and HIF-1alpha in BV2 cells in each group. (D) GLU content analysis chart; (E) LD content analysis chart; (F) ATP content analysis chart; (G) . LDH activity analysis graph; (H) PDH activity analysis graph. (I) Flow cytometry analysis charts; (J) Flow cytograms of BV2 cells in each group; (K) Blotting of IL-1beta protein in BV2 cells in each group; (L) Expression level of IL-1beta in BV2 cells in each group. (M, N) Expression level of IL-6 and TNF-alpha in BV2 cells in each group. Model group compared with control group * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, HSD-containing serum-treated group compared with the model group $ $p < 0.05$, $$ $p < 0.01$, $$$ $p < 0.001$, Reverse validation group compared with the HSD-containing serum-treated group & $p < 0.05$, && $p < 0.01$, &&& $p < 0.001$.Index in PubMed under a CC BY license. PMID: 39130642



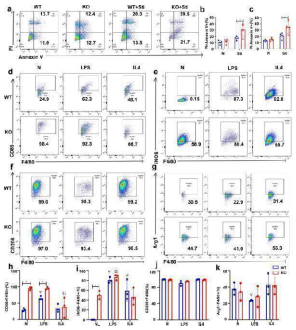
Expression levels of CD86, Arg1 and IL-1beta protein in hippocampus and cortex of SAMP8 mice detected by Western-blot, the expression levels of IL-6 and TNF-alpha in hippocampus and cortex of SAMP8 mice by ELISA. (A,E) Blotting of CD86, Arg1 and IL-1beta protein in hippocampus and cortex of mice in each group; (B–D) Expression of CD86, Arg1 and IL-1beta protein in hippocampus of mice in each group; (F–H) Expression of CD86, Arg1 and IL-1beta protein in cortex of mice in each group; (I–L) Expression of IL-6 and TNF-alpha protein in hippocampus and cortex of mice in each group. Model group compared with the control group * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, Donepezil group compared with the model group # $p < 0.05$, ## $p < 0.01$, ### $p < 0.001$, HSD group compared with the model group $ $p < 0.05$, $$ $p < 0.01$, $$$ $p < 0.001$.Index in PubMed under a CC BY license. PMID: 39130642

Mice reconstituted with FGF2 KO macrophages and subjected to CLP demonstrate increased M1 polarization in lung tissue. a - f The presence and levels of CD206, CD86, and F4/80 markers on macrophages within lung tissue were

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identified and quantitatively assessed using immunofluorescence staining. Bar is 20 um. * $p < 0.05$, vs. WT; Δ $p < 0.05$ vs. WT + LPS; # $p < 0.05$ vs. FGF2 KO Index in PubMed under a CC BY license. PMID: 39436561



Effect of FGF2 deficiency on BMDM apoptosis and polarization. a – c FGF2 deletion increased BMDM apoptosis. a Apoptosis in BMDM deprived of FBS for 24 h was assessed by flow cytometry (n = 4). b - c Percentage of PI + Annexin V + and PI- Annexin V + BMDM after starvation. d - k FGF2 deletion in BMDM promoted M1 polarization. d - g Flow cytometric analysis of macrophage markers in BMDM treated with LPS or IL4, including CD86, iNOS, CD206, and Arg1 (n = 3). h - k The levels of CD86, iNOS, CD206 and Arg1 in BMDM after treatment with LPS or IL4. N represents no treatment; * $p < 0.05$, vs. WT; Ψ $p < 0.05$, vs. N + WT; Ω $p < 0.05$, vs. N + FGF2 KO Index in PubMed under a CC BY license. PMID: 39436561

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