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antibody and ELISA experts

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Anti-Caspase-1 + p10 + p12 Rabbit Monoclonal Antibody

Catalog Number: M00048-2

Overview

Product Name	Anti-Caspase-1 + p10 + p12 Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Caspase-1 + p10 + p12 Rabbit Monoclonal Antibody catalog # M00048-2. Tested in WB, IP applications. This antibody reacts with Human, Mouse, Rat.
Application	IP, WB
Clonality	Monoclonal 26C50
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	P29466

Technical Details

Immunogen	A synthesized peptide derived from Caspase-1 + p10 + p12
Isotype	IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB 1:500-2000 IP 1:50

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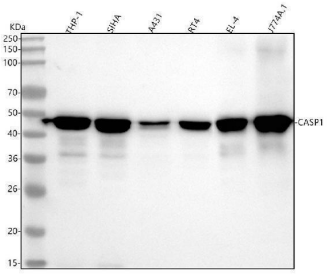
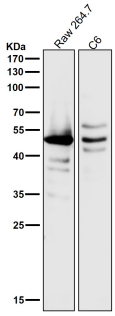
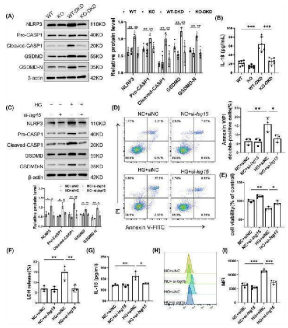
Anti-Caspase-1 + p10 + p12 Rabbit Monoclonal Antibody (M00048-2) Images



Western blot analysis of Caspase-1 using anti-Caspase-1 antibody (M00048-2). 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 THP-1 whole cell lysates, Lane 2: human SiHa whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: human RT4 whole cell lysates, Lane 5: mouse EL-4 whole cell lysates, Lane 6: mouse J774A.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-Caspase-1 antigen affinity purified monoclonal antibody (Catalog # M00048-2) 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 1:500 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 Caspase-1 at approximately 45 kDa. The expected band size for Caspase-1 is at 45 kDa.



All lanes use the Antibody at 1:500 dilution for 1 hour at room temperature.



Ablation of ISG15 decreased pyroptosis of TECs under HG stimulation. (A) Western blot analysis and densitometric quantification of pyroptosis-related proteins (NLRP3, Pro-CASP1, Cleaved-CASP1, GSDMD, GSDMD-N) expression in kidney tissues from WT and KO mice treated with vehicle or STZ (n = 6). (B) Level of IL-18 in the serum from WT and KO mice treated with vehicle or STZ (n = 6). (C) Western blot analysis of pyroptosis-related proteins (NLRP3, Pro-CASP1, Cleaved-CASP1, GSDMD, GSDMD-N) expression in TECs (n = 3). (D) Flow cytometry analysis and quantitative data depicting the TECs Annexin V/PI double-positive cells rate (n = 3). (E) CCK-8-kit activity assay quantified cell viability (n = 3). (F–I) Level of LDH (F), IL-18 (G), ROS (H and I) in TECs (n = 3). TECs were transfected with sinc (50 nM) or si- Isg15 (50 nM), and then cultured in HG medium for 48 h. Results are expressed as the mean ± SD. * p

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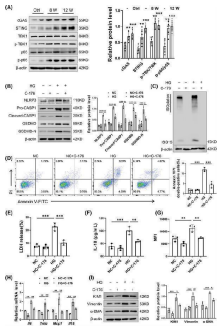
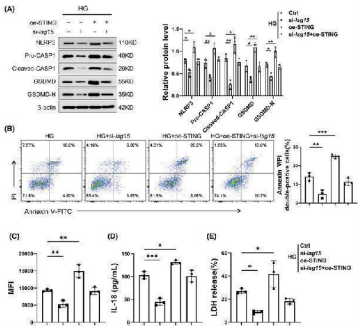
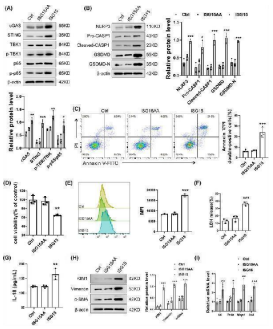


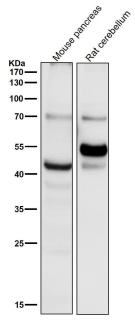
The cGAS–STING pathway was activated in the DKD mice. (A) Western blot analysis and densitometric quantification of cGAS, STING, TBK1, p-TBK1, p65, p-p65 expression in DKD mice (n = 6). (B) Western blot analysis and densitometric quantification of NLRP3, Pro-CASP1, Cleaved-CASP1, GSDMD, GSDMD-N expression in TECs (n = 3). (C) Western blot analysis ISG15/ISGylation expression in TECs (n = 3). (D) Flow cytometry analysis and quantitative data depicting the Annexin V/PI double-positive cells rate (n = 3). (E–G) Levels of LDH (E), IL-18 (F), ROS (G) in TECs (n = 3). (H) Relative mRNA level of pro-inflammatory factors (Il6 , Tnfa , Mcp1 , Il18) in TECs (n = 3). (I) Western blot analysis and densitometric quantification of KIM1, alpha-SMA and Vimentin expression in TECs (n = 3). TECs were transfected with vehicle or C-176 (10 μM), and then cultured in HG medium for 48 h. Results are expressed as the mean ± SD. * p



ISG15–STING loop-maintained HG-induced injury in TECs. (A) Western blot analysis and densitometric quantification of NLRP3, Pro-CASP1, Cleaved-CASP1, GSDMD and GSDMD-N expression in TECs (n = 3). (B) Flow cytometry analysis and quantitative data depicting the Annexin V/PI double-positive cells rate (n = 3). (C–E) Levels of ROS (C), IL-18 (D), LDH (E) in TECs (n = 3). TECs were transfected with oe-STING (4 μg) or si- Isg15 (50 nM), and then cultured in HG medium for 48 h. Results are expressed as the mean ± SD. * p



ISG15 contributed to TECs injury in an ISGylation-dependent manner. (A) Western blot analysis and densitometric quantification of cGAS, STING, TBK1, p-TBK1, p65, p-p65 expression in TECs (n = 3). (B) Western blot analysis and densitometric quantification of NLRP3, Pro-CASP1, Cleaved-CASP1, GSDMD, GSDMD-N expression in TECs (n = 3). (C) Flow cytometry analysis and quantitative data depicting the Annexin V/PI double-positive cells rate (n = 3). (D) CCK-8 activity assay quantified cell viability (n = 3). (E–G) Levels of ROS (E), LDH (F), IL-18 (G) in TECs (n = 3). (H) Western blot analysis and densitometric quantification of KIM1, alpha-SMA and Vimentin expression in TECs (n = 3). (I) Relative mRNA level of pro-inflammatory factors (Il6 , Tnfa , Mcp1 and Il18) in TECs (n = 3). TECs were transfected with empty vector, ISG15AA or ISG15 (4 μg). Results are expressed as the mean ± SD. * p



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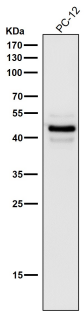

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