BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
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# Anti-ADAM10 Antibody

**Catalog Number:** A00566-2

## About ADAM10

Proinflammatory cytokine tumor necrosis factor-alpha (TNF-alpha) contributes to a variety of inflammatory responses and programmed cell death. Notch receptor and its ligand participate in cell fate decisions during vertebrate development and are associated with several human disorders, including a T-cell lymphoma. TNF-alpha, notch and its ligand delta are all membrane-bond molecules, which are cleaved by proteases to release mature proteins or functional receptor. ADAM10, a metalloprotease-disintegrin in the family of mammalian ADAM (for a disintegrin and metalloprotease), was recently identified to cleave TNF-alpha, notch and its ligand delta. The genes encoding human, mouse, and bovine ADAM10 were recently cloned and designated ADAM 10, kuzbanian (KUZ), and MADM, respectively. ADAM10 mRNA is expressed in a variety of human and bovine tissues.

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## Overview

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|---|---|
| Product Name | Anti-ADAM10 Antibody |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-ADAM10 Antibody (Catalog # A00566-2). Tested in ELISA, IHC-P, IF, ICC/IF, WB applications. This antibody reacts with Human, Mouse, Rat. |
| Application | ELISA, IF, IHC-P, ICC, WB |
| Clonality | Polyclonal |
| Formulation | ADAM10 Antibody is supplied in PBS containing ≤0.09% sodium azide. |
| Storage Instructions | ADAM10 antibody can be stored at 4°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Host | Rabbit |
| Uniprot ID | O14672 |

## Technical Details

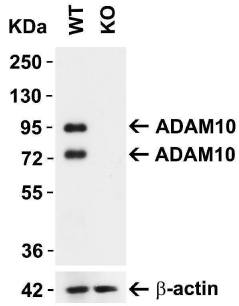
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| Immunogen | Anti-ADAM10 antibody was raised against a peptide corresponding to 17 amino acids near the carboxy terminus of human ADAM10. The immunogen is located within the last 50 amino acids of ADAM10. |

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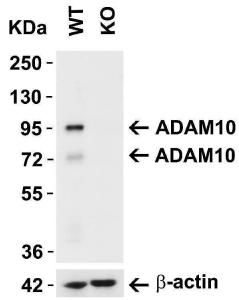
| | |
|---|---|
| Predicted Reactive Species | Bovine |
| Isotype | IgG |
| Form | Liquid |
| Concentration | 1 mg/mL |
| Purification | ADAM10 Antibody is Protein A purified. |
| Suggested Dilutions | WB: 1-2 ug/mL<br>IHC-P: 1-2 ug/mL<br>IF: 10-20 ug/mL<br>ICC/IF: 10-20 ug/mL.<br>Antibody validated: Western Blot in human, mouse and rat samples; Immunofluorescence in human, mouse and rat samples; Immunohistochemistry in human and mouse samples. All other applications and species not yet tested. |

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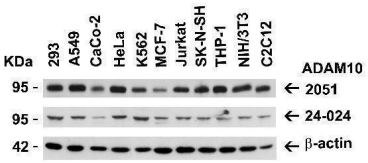
# Anti-ADAM10 Antibody (A00566-2) Images



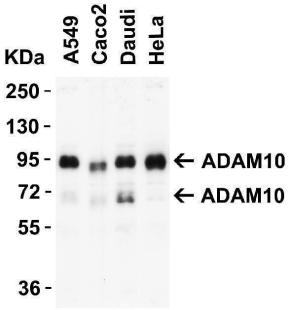

ADAM10 KO Validation in MEF Cells Loading: 10 ug of lysate Antibodies: ADAM10 A00566-2, 1 ug/mL and beta-actin 3779-1301, 1ug/mL, 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution. A00566-2 detected both precursor ADAM10 (94KD) and mature ADAM10 (68kD).



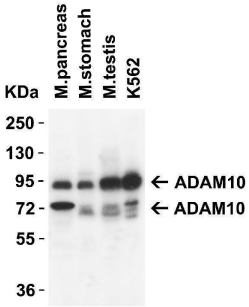

ADAM10 KO Validation in 293 Cells Loading: 15 ug of lysate Antibodies: ADAM10 A00566-2, 2 ug/mL and beta-actin 3779-1301, 1ug/mL, 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution. A00566-2 detected both precursor ADAM10 (94KD) and mature ADAM10 (68kD).




Independent Antibody Validation (IAV) via Protein Expression Profile in Human and Mouse Cell Lines Loading: 15 ug of lysates per lane. Antibodies: ADAM10 A00566-2, 0.5 ug/mL, ADAM10 24-024, 1 ug/mL, and -actin 3779, 1 ug/mL, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

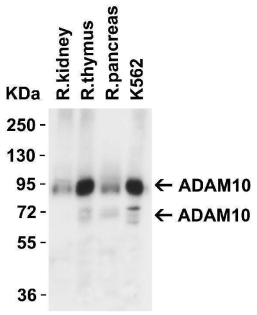



WB Validation in Human Cell Lines Loading: 15 ug of lysate Antibodies: ADAM10 A00566-2, 1 ug/mL, 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution. A00566-2 detected both precursor ADAM10 (94KD) and mature ADAM10 (68kD).

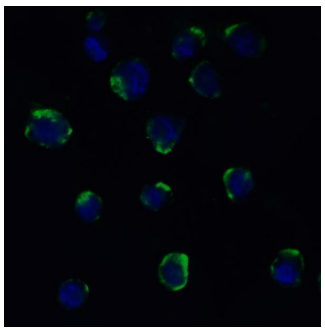



Western Blot Validation in Mouse Tissues Loading: 15 ug of lysates per lane. Antibodies: ADAM10 A00566-2, 1 ug/mL, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. A00566-2 detected both precursor ADAM10 (94KD) and mature ADAM10 (68kD).

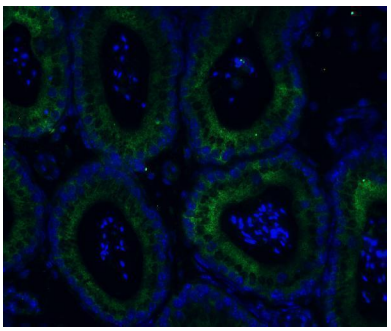
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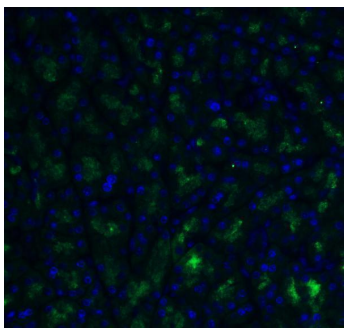

Western Blot Validation in Rat Tissues Loading: 15 ug of lysates per lane. Antibodies: ADAM10 A00566-2, 1 ug/mL, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. A00566-2 detected both precursor ADAM10 (94KD) and mature ADAM10 (68kD).



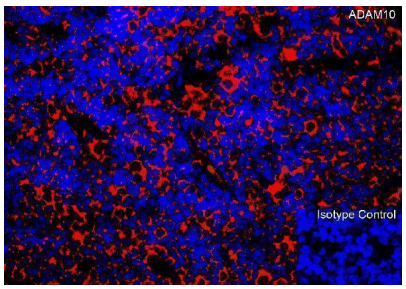
Immunofluorescence Validation of ADAM10 in MOLT4 Cells
Immunofluorescent analysis of 4% paraformaldehyde-fixed MOLT4 cells labeling ADAM10 with A00566-2 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



Immunofluorescence Validation of ADAM10 in Mouse Testis
Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse testis labeling ADAM10 with A00566-2 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).

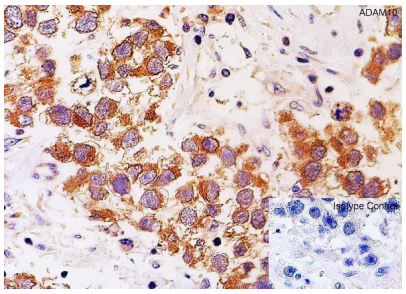


Immunofluorescence Validation of ADAM10 in Rat Testis
Immunofluorescent analysis of 4% paraformaldehyde-fixed rat testis labeling ADAM10 with A00566-2 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).

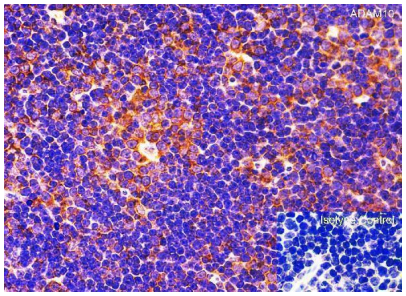



Immunofluorescence Validation of ADAM10 in Rat Thymus
Immunofluorescent analysis of 4% paraformaldehyde-fixed rat thymus labeling ADAM10 with A00566-2 at 10 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red) and DAPI staining (blue).

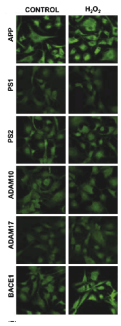
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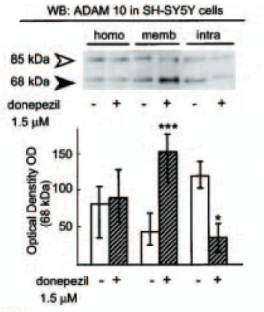

Immunohistochemistry Validation of ADAM10 in Human Testis Immunohistochemical analysis of paraffin-embedded human testis tissue using anti-ADAM10 antibody (A00566-2) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4˚C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



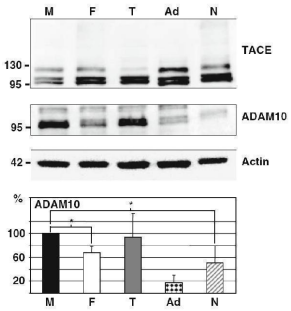

Immunohistochemistry Validation of ADAM10 in Mouse Thymus Immunohistochemical analysis of paraffin-embedded mouse thymus tissue using anti-ADAM10 antibody (A00566-2) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4˚C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.




Immunofluorescence Validation of ADAM10 in primary cultures of human cerebral vascular smooth muscle cells (HC-VSMCs) (Coma et al., 2008) Detection of ADAM10 expression by anti-ADAM10 antibodies in HC-VSMC cells under control condition or in the presence of 10uM H2O2 (oxidative stress condition) for 6 h. ADAM10 expression was not affected when exposed to oxidative stress.




Regulated Expression Validation of ADAM10 in Human neuroblastoma (SH-SY5Y) cells (Zimmermann et al., 2004) Protein expression of ADAM10 detected by anti-ADAM10 CT antibodies in control or donepezil treated SH-SY5Y cells. When treated with donepezil, the expression of mature form of ADAM10 (68kD) was up-regulated in membrane compartment as compared to the down-regulation in intracellular fractions, and was not affected in whole cell homogenate.




KD Validation of ADAM10 in Human embryonic kidney 293 cells overexpressing the human APP 695 isoform (HEK/APP) (Gatta et al., 2009) Western blot analysis of ADAM10 silencing using anti-ADAM10 antibodies in HEK/APP cells. Silencing with ADAM10 siRNA (Ad) significantly decreased ADAM10 expression, and so did with Ferrochelatase siRNA (F) and N-methylprotoporphyrin IX siRNA (N), 67% and 50% reduction respectively

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