

Anti-CAD Antibody (Center)

Catalog Number: A00463-3

About CAD

The de novo synthesis of pyrimidine nucleotides is required for mammalian cells to proliferate. This gene encodes a trifunctional protein which is associated with the enzymatic activities of the first 3 enzymes in the 6-step pathway of pyrimidine biosynthesis: carbamoylphosphate synthetase (CPS II), aspartate transcarbamoylase, and dihydroorotase. This protein is regulated by the mitogen-activated protein kinase (MAPK) cascade, which indicates a direct link between activation of the MAPK cascade and de novo biosynthesis of pyrimidine nucleotides.

Overview

Product Name	Anti-CAD Antibody (Center)
Reactive Species	Human
Description	Boster Bio Anti-CAD Antibody (Center) (Catalog # A00463-3). Tested in WB, IHC-P, Flow Cytometry application(s). This antibody reacts with Human.
Application	Flow Cytometry, IHC-P, WB
Clonality	Polyclonal
Formulation	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P27708

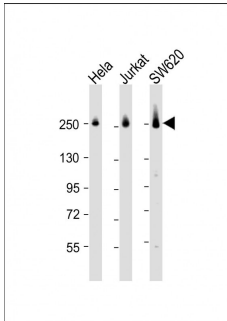
Technical Details

Immunogen	This CAD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 780-809 amino acids from the Central region of human CAD.
Predicted Reactive Species	Mouse
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross reactivity with other proteins.
Isotype	Rabbit IgG
Form	Liquid
Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.

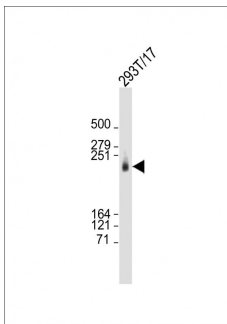
Suggested Dilutions

WB: 1:1000
IHC-P: 1:25
FC: 1:25

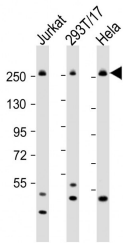
Anti-CAD Antibody (Center) (A00463-3) Images



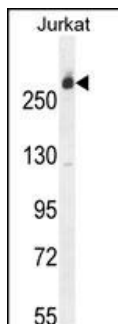
All lanes : Anti-CAD Antibody (Center) at 1:2000 dilution
Lane 1: Hela whole cell lysate
Lane 2: Jurkat whole cell lysate
Lane 3: SW620 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 243 kDa
Blocking/Dilution buffer: 5% NFDm/TBST.



Anti-CAD Antibody (Center) at 1:2000 dilution + 293T/17 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 243 kDa
Blocking/Dilution buffer: 5% NFDm/TBST.

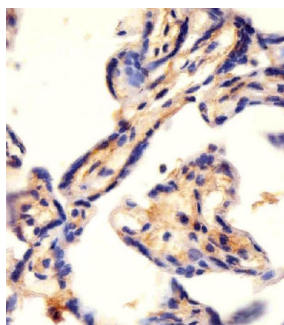
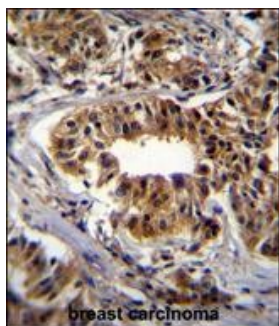


All lanes : Anti-CAD Antibody (Center) at 1:2000 dilution
Lane 1: Jurkat whole cell lysate
Lane 2: 293T/17 whole cell lysate
Lane 3: Hela whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 243 kDa
Blocking/Dilution buffer: 5% NFDm/TBST.

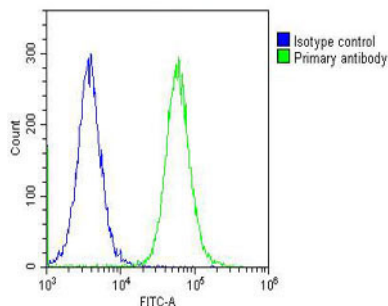


CAD Antibody (Center) western blot analysis in Jurkat cell line lysates (35ug/lane). This demonstrates the CAD antibody detected the CAD protein (arrow).

CAD Antibody (Center) immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of CAD Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



A00463-3 staining CAD in human placenta tissue sections by Immunohistochemistry (IHC-P -paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing HeLa cells stained with A00463-3 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (A00463-3, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG (1g/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

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