

Rabbit CAD Polyclonal Antibody | anti-CAD antibody

Phospho-CAD (Ser1859) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329451	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (91%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (91%)	ELISA, Immunohistochemistry, Western Blot

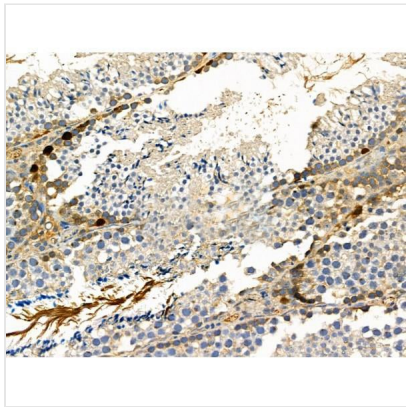
PRODUCT SYNONYMS

CAD; Polyclonal Antibody; Phospho-CAD (Ser1859) Antibody; Aspartate carbamoyltransferase; Aspartate transcarbamylase; CAD protein; CAD trifunctional protein; Carbamoyl phosphate synthetase 2; CPSase ATCase DHOase; Dihydroorotase; Glutamine dependent carbamoyl phosphate synthase; Multifunctional protein CAD; anti-CAD antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (91%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (91%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-CAD (Ser1859) Antibody detects endogenous levels of CAD only when phosphorylated at Ser1859.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CAD antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CAD around the phosphorylation site of Ser1859.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Activated by MAP kinase (Erk1/2) phosphorylation just prior to the S phase of the cell cycle, when the demand for pyrimidine nucleotides is greatest, and down-regulated as the cells emerge from S phase by protein kinase A (PKA) phosphorylation. Phosphorylation at Ser-1859 by RPS6KB1 downstream of MTOR promotes oligomerization and stimulates dihydroorotase activity. Phosphorylation at Ser-1406 reduces sensitivity to feedback inhibition by UTP.
Subunit Structure	Homohexamer. Interacts with CIPC.
Similarity	In the central section; belongs to the metallo-dependent hydrolases superfamily. DHOase family. CAD subfamily.
Subcellular Location	Cytoplasm. Nucleus. Note: Cytosolic and unphosphorylated in resting cells, translocates to the nucleus in response to EGF stimulation, nuclear import promotes optimal cell growth.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



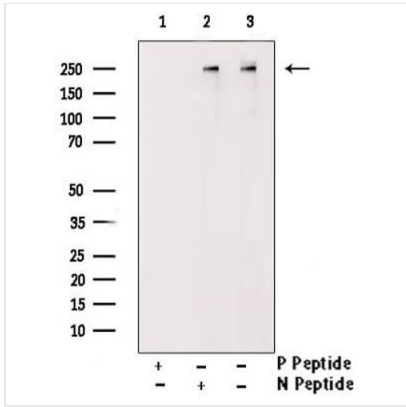
IHC (Immunohistochemistry)

At 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from 293T , using Phospho-CAD (Ser1859) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-CAD antibody	This protein is a 'fusion' protein encoding four enzymatic activities of the pyrimidine pathway (GATase, CPSase, ATCase and DHOase).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	18105007
NCBI GeneID	790
NCBI Accession #	NP_004332.2
NCBI GenBank Nucleotide #	NM_004341.3
UniProt Accession #	P27708; Q6P0Q0; D6W552
Molecular Weight	242,984 Da
NCBI Official Full Name	CAD protein
NCBI Official Synonym Full Names	carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and dihydroorotase
NCBI Official Symbol	CAD

NCBI Protein Information	CAD protein; CAD trifunctional protein; multifunctional protein CAD
UniProt Protein Name	CAD protein
UniProt Gene Name	CAD
UniProt Entry Name	PYR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cad-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329451>