



# CAD (phospho-Ser1859) rabbit pAb

<b>Catalog No</b>	YP-Ab-00266
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB
<b>Gene Name</b>	CAD
<b>Protein Name</b>	CAD (Ser1859)
<b>Immunogen</b>	Synthesized phospho peptide around human CAD (Ser1859)
<b>Specificity</b>	This antibody detects endogenous levels of Human Mouse Rat CAD (phospho-Ser1859)
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
<b>Dilution</b>	WB 1:1000-2000
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	CAD protein [Includes: Glutamine-dependent carbamoyl-phosphate synthase (EC 6.3.5.5); Aspartate carbamoyltransferase (EC 2.1.3.2); Dihydroorotase (EC 3.5.2.3)]
<b>Observed Band</b>	250kD
<b>Cell Pathway</b>	Cytoplasm . Nucleus . Cytosolic and unphosphorylated in resting cells, translocates to the nucleus in response to EGF stimulation, nuclear import promotes optimal cell growth.
<b>Tissue Specificity</b>	Colon adenocarcinoma,Epithel
<b>Function</b>	catalytic activity:(S)-dihydroorotate + H(2)O = N-carbamoyl-L-aspartate.,catalytic activity:2 ATP + L-glutamine + HCO(3)(-) + H(2)O = 2 ADP + phosphate + L-glutamate + carbamoyl phosphate.,catalytic activity:Carbamoyl phosphate + L-aspartate = phosphate + N-carbamoyl-L-aspartate.,cofactor:Binds 1 zinc ion per subunit (for dihydroorotase activity) .,enzyme regulation:Allosterically regulated and controlled by phosphorylation. 5-phosphoribose 1-diphosphate is an activator while UMP is an inhibitor of the CPSase reaction.,function:This protein is a "fusion" protein encoding four enzymatic activities of the pyrimidine pathway (GATase, CPSase, ATCase and DHOase).,miscellaneous:GATase (glutamine amidotransferase) and CPSase (carbamoyl phosphate synthase) form together the glutamine-dependent CPSase (GD-CPSase) (EC 6.3.5.5).,online information:Aspartate carbamoyltransferase entry,pathway:Pyrimi

**Background**

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. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Apr 2015],

**matters needing attention**

Avoid repeated freezing and thawing!

**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

**Products Images**