

CAD (Phospho Ser1859) rabbit pAb

Catalog No :	YP1284
Reactivity :	Human;Mouse;Rat
Applications :	WB
Target :	CAD
Fields :	>>Pyrimidine metabolism;>>Alanine, aspartate and glutamate metabolism;>>Metabolic pathways;>>Biosynthesis of cofactors
Gene Name :	CAD
Protein Name :	CAD (Ser1859)
Human Gene Id :	790
Human Swiss Prot No :	P27708
Immunogen :	Synthesized phospho peptide around human CAD (Ser1859)
Specificity :	This antibody detects endogenous levels of Human Mouse Rat CAD (phospho-Ser1859)
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:1000-2000
Purification :	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	250kD

Cell Pathway :	<u>Pyrimidine metabolism;Alanine; aspartate and glutamate metabolism;</u>
Background :	<p>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],</p>
Function :	<p>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</p>
Subcellular Location :	<p>Cytoplasm . Nucleus . Cytosolic and unphosphorylated in resting cells, translocates to the nucleus in response to EGF stimulation, nuclear import promotes optimal cell growth.</p>
Expression :	<u>Colon adenocarcinoma,Epithe</u>

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