



CAD (phospho Thr456) Polyclonal Antibody

Catalog No	YP-Ab-00240
Isotype	IgG
Reactivity	Human;Mouse
Applications	IHC;IF;ELISA
Gene Name	CAD
Immunogen	The antiserum was produced against synthesized peptide derived from human CAD around the phosphorylation site of Thr456. AA range:422-471
Specificity	Phospho-CAD (T456) Polyclonal Antibody detects endogenous levels of CAD protein only when phosphorylated at T456.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	IHC: 1/100 - 1/300. ELISA: 1/5000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Ammonium-dependent carbamoyl phosphate synthase;Aspartate carbamoyltransferase;Carbamoyl phosphate synthetase 2-aspartate transcarbamylase-dihydroorotase;CPS;CPSase;CAD;CAD protein
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Cytoplasm . Nucleus . Cytosolic and unphosphorylated in resting cells, translocates to the nucleus in response to EGF stimulation, nuclear import promotes optimal cell growth.
Tissue Specificity	Colon adenocarcinoma,Epithe
Function	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],

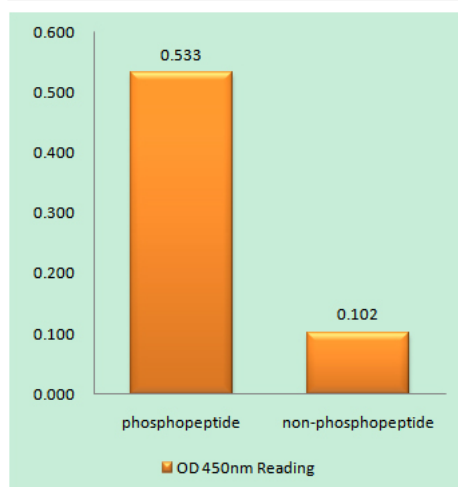
matters needing attention

Avoid repeated freezing and thawing!

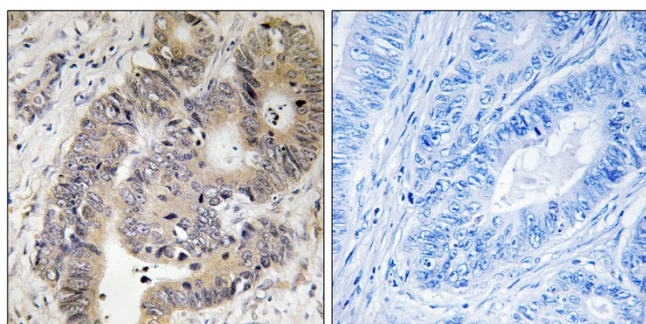
Usage suggestions

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

Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CAD (Phospho-Thr456) Antibody



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using CAD (Phospho-Thr456) Antibody. The picture on the right is blocked with the phosphopeptide.