CAD polyclonal antibody

Catalog: CAS75113 Host: Rabbit Reactivity: Human,Mouse,Rat

BackGround:

CAD is essential for the de novo synthesis of pyrimidine nucleotides and possesses the following enzymatic activities: glutamine amidotransferase, carbamoyl-phosphate synthetase, aspartate transcarbamoylase, and dihydroorotase. Thus, the enzyme converts glutamine to uridine monophosphate, a common precursor of all pyrimidine bases, and it is necessary for nucleic acid synthesis. In resting cells, CAD is localized mainly in the cytoplasm where it carries out pyrimidine synthesis. As proliferating cells enter S phase, MAP Kinase (Erk1/2) phosphorlyates CAD at Thr456, resulting in CAD translocation to the nucleus. As cells exit S phase, CAD is dephosphorylated at Thr456 and phosphorylated at Ser1406 by PKA, returning the pathway to basal activity. Various research studies have shown increased expression of CAD in several types of cancer, prompting the development of pharmacological inhibitors such as PALA. Further studies have identified CAD as a potential predictive early marker of prostate cancer relapse.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2.

Molecular Weight:

~ 280kDa

Swiss-Prot:

P27708

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:5000~1:10000

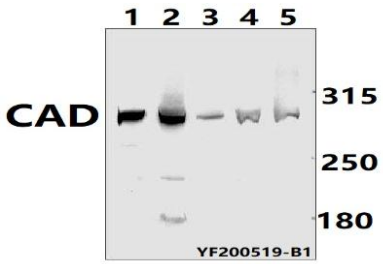
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

Specificity:

CAD polyclonal antibody detects endogenous levels of CAD protein.

DATA:



Western blot (WB) analysis of CAD polyclonal antibody at 1:10000 dilution

Lane1:CT-26 whole cell lysate(40ug)

Lane2:Myla2059 whole cell lysate(40ug)

Lane3:PC12 whole cell lysate(40ug)

Lane4:HCT116 whole cell lysate(40ug)

Lane5:MCF-7 whole cell lysate(40ug)

Note:

For research use only, not for use in diagnostic procedure.

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