For Research Use Only

# Phospho-CAD (Ser1859) Recombinant monoclonal antibody

Catalog Number:87337-2-RR

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## Basic Information

Catalog Number:
87337-2-RR

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_004341

GeneID (NCBI):
790

UNIPROT ID:
P27708

Full Name:
carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and dihydroorotase

Calculated MW:
2225 aa, 243 kDa

Observed MW:
250 kDa

Purification Method:
Protein A purification

CloneNo.:
252640C5

Recommended Dilutions:
WB: 1:2000-1:10000
IF/ICC: 1:200-1:800

## Applications

Tested Applications:
WB, IF/ICC, ELISA

Species Specificity:
human

Positive Controls:

WB : HEK-293 cells, HeLa cells, MCF-7 cells, Rapamycin treated MCF-7 cells

IF/ICC : Rapamycin treated MCF-7 cells,

## Background Information

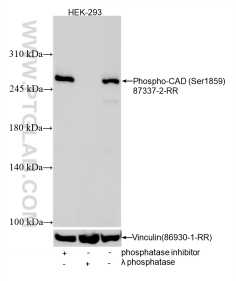
CAD (carbamoyl-phosphate synthetase 2, aspartate transcarbamoylase, and dihydroorotase) is a multifunctional enzyme required for the de novo synthesis of pyrimidine nucleotides. Phospho-CAD (Ser1859) refers to the phosphorylated form of the multi-enzyme CAD (carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and dihydroorotase) on serine 1859. This modification is catalyzed by ribosomal protein S6 kinase 1 (S6K1) downstream of mTORC1 signaling and serves as a metabolic switch that converts CAD from its basal state into a highly active oligomer, thereby accelerating the first three rate-limiting steps of de novo pyrimidine synthesis. (PMID:25422319, PMID: 32974014)

## Storage

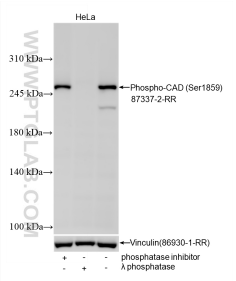
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

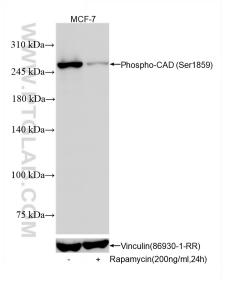
## Selected Validation Data



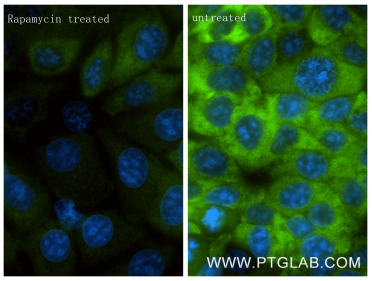

Non-treated HEK-293 cells, phosphatase inhibitor treated HEK-293 cells and λ phosphatase treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 87337-2-RR (Phospho-CAD (Ser1859) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Vinculin (86930-1-RR) antibody as a loading control.




Non-treated HeLa cells, phosphatase inhibitor treated HeLa cells and λ phosphatase treated HeLa cells were subjected to SDS PAGE followed by western blot with 87337-2-RR (Phospho-CAD (Ser1859) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Vinculin (86930-1-RR) antibody as a loading control.




Non-treated MCF-7 cells and Rapamycin treated MCF-7 cells were subjected to SDS PAGE followed by western blot with 87337-2-RR (Phospho-CAD (Ser1859) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Vinculin (86930-1-RR) antibody as a loading control.




Immunofluorescent analysis of (-20°C Methanol) fixed Rapamycin treated MCF-7 cells using Phospho-CAD (Ser1859) antibody (87337-2-RR, Clone: 252640C5 ) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).