

## [KD Validated] Anti-CAD Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

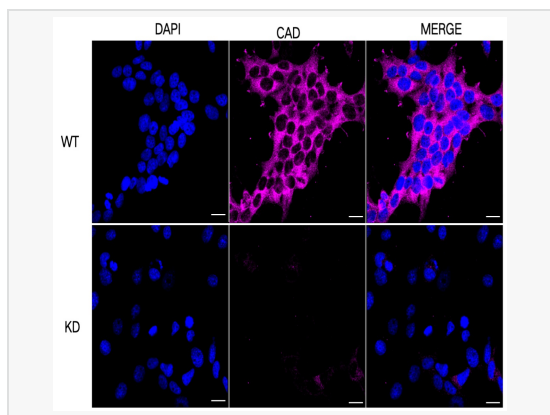
Catalog # R021193

### Product Information

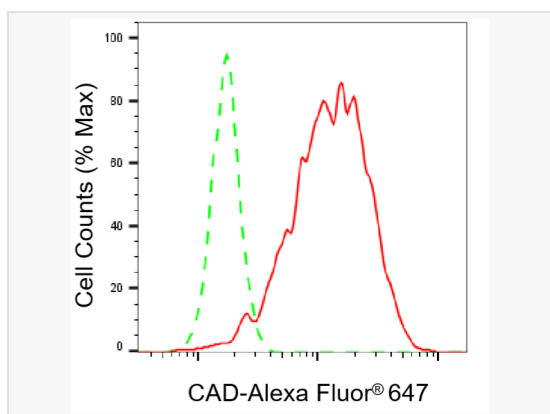
Application	WB, FC, IF (Cell)/ICC
Reactivity	Human
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	85F41M83
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human CAD
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-CAD Rabbit mAb [85F41M83] is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

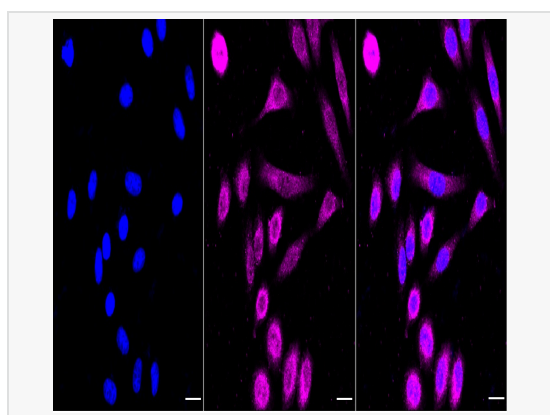
Synonyms	CAD; Carbamoyl-Phosphate Synthetase 2, Aspartate Transcarbamylase, And Dihydroorotase; GATD4; CAD Protein; Multifunctional Protein CAD; CAD Trifunctional Protein; EC 6.3.5.5; EC 2.1.3.2; EC 3.5.2.3; EC 6.3.5; EIEE50; CDG1Z; DEE50.
Calculated MW	Calculated MW: 243 kDa; Observed MW: 260 kDa
Uniprot ID	P27708
Gene ID	790
Background	Carbamoyl phosphate synthetase-aspartate carbamoyltransferase-dihydroorotase (CAD) is a multifunctional protein that initiates and regulates mammalian de novo pyrimidine biosynthesis.



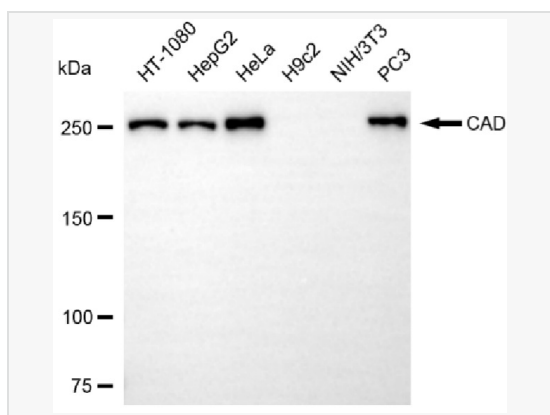
Immunocytochemical staining of HeLa cells using CAD antibody (R021193, 1:1,000), Top panel: wild-type (WT); Bottom panel: CAD shRNA knockdown (KD). Nuclei were stained blue with DAPI; Acyl-CoA dehydrogenase short chain was stained magenta with Alexa Fluor® 647. Scale bar, 20  $\mu$ m.



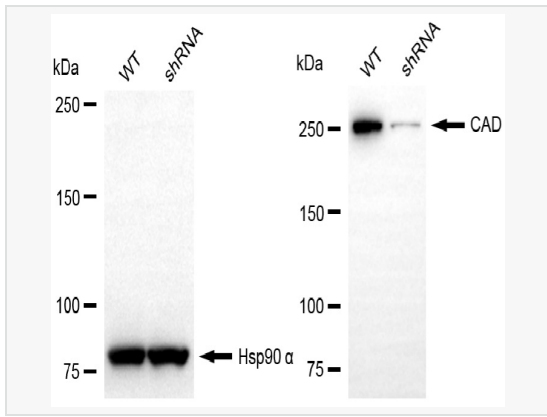
Flow cytometric analysis of CAD expression in HepG2 cells using CAD antibody (R021193, 1:2,000). Green, isotype control; red, CAD.



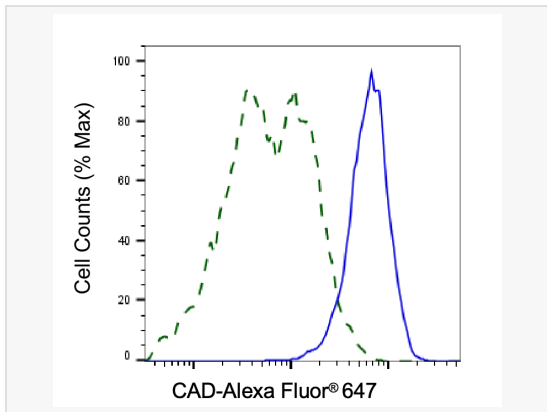
Immunocytochemical staining of HepG2 cells with CAD antibody (R021193, 1:1,000). Nuclei were stained blue with DAPI; CAD was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20  $\mu$ m.



Western blotting analysis using CAD antibody (R021193). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with CAD antibody (R021193, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using CAD antibody (R021193). CAD expression in wild-type (WT) and CAD shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with CAD antibody (R021193, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of CAD knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with CAD antibody (R021193, 1:2,000) and analyzed using BD flow cytometer.