

**产品名称: CAD Rabbit Polyclonal Antibody**

**产品货号: APRab07823**

### 产品概述 (Summary)

|                   |                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------|
| 描述(Description)   | Rabbit polyclonal Antibody                                                                        |
| 宿主(Host)          | Rabbit                                                                                            |
| 应用(Application)   | IHC, ICC/IF, ELISA                                                                                |
| 种属反应(Reactivity)  | Human, Mouse                                                                                      |
| 偶联物(Conjugation)  | Unconjugated                                                                                      |
| 修饰(Modification)  | Unmodified                                                                                        |
| 同种型(Isotype)      | IgG                                                                                               |
| 克隆(Clonality)     | Polyclonal                                                                                        |
| 剂型(Form)          | Liquid                                                                                            |
| 保存条件(Storage)     | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.          |
| 储存溶液(Buffer)      | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| 纯化 (Purification) | Affinity purification                                                                             |

### 产品应用(Application)

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| 稀释比(Dilution Ratio)   | IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:10000-1:20000 |
| 分子量(Molecular Weight) | 250kDa                                                    |

### 抗原信息(Antigen Information)

|                       |                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------|
| 基因名(Gene Name)        | CAD                                                                                             |
| 别名(Alternative Names) | CAD; CAD protein                                                                                |
| 基因 ID(Gene ID)        | 790.0                                                                                           |
| SwissProt ID          | P27708                                                                                          |
| 免疫原(Immunogen)        | The antiserum was produced against synthesized peptide derived from human CAD. AA range:422-471 |

### 研究背景 (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], catalytic activity: (S)-dihydroorotate + H<sub>2</sub>O = N-carbamoyl-L-aspartate, catalytic activity: 2 ATP + L-glutamine + HCO<sub>3</sub><sup>(-)</sup> + H<sub>2</sub>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: Pyrimidine metabolism; UMP biosynthesis via de novo pathway; UMP from HCO<sub>3</sub><sup>(-)</sup>: step 1/6, pathway: Pyrimidine metabolism; UMP biosynthesis via de novo pathway; UMP from HCO<sub>3</sub><sup>(-)</sup>: step 2/6, pathway: Pyrimidine metabolism; UMP biosynthesis via de novo pathway; UMP from HCO<sub>3</sub><sup>(-)</sup>: step 3/6, similarity: Belongs to the ATCase/OTCase family, similarity: Contains 1 glutamine amidotransferase type-1 domain, similarity: Contains 2 ATP-grasp domains, similarity: In the central section; belongs to the DHOase family, subunit: Homohexamer,

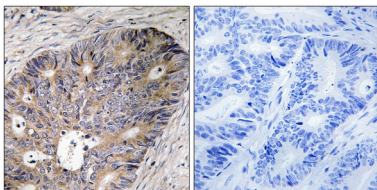
### 研究领域 (Research Area)

Pyrimidine metabolism; Alanine; aspartate and glutamate metabolism;

### 注意事项 (Note)

For research use only.

### 图片 (Image Data)



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue, using CAD Antibody. The picture on the right is blocked with the synthesized peptide.

## EnkiLife 优势产品推荐

| 产品类别                        | 产品货号     | 产品名称                                               |
|-----------------------------|----------|----------------------------------------------------|
| WB 解决方案                     | RA10020  | 2h 极速 WB 即用型全流程试剂盒                                 |
|                             | RA10021  | 4h 快速 WB 即用型全流程试剂盒                                 |
|                             | RA10042  | 5h 畅享版 WB 全流程试剂盒                                   |
|                             | RA10037  | 校准级彩色预染蛋白 Marker (8-180kDa)                        |
|                             | RA10038  | 校准级彩色预染蛋白 Marker (10-250kDa)                       |
|                             | RA10039  | 校准级高分子彩色预染蛋白 Marker (25-400kDa)                    |
| TSA 多重荧光染色试剂盒               | RA10008  | TSA 双标三色多重荧光染色试剂盒 (mIHC)                           |
|                             | RA10009  | TSA 三标四色多重荧光染色试剂盒 (mIHC)                           |
|                             | RA10010  | TSA 四标五色多重荧光染色试剂盒 (mIHC)                           |
|                             | RA10011  | TSA 五标六色多重荧光染色试剂盒 (mIHC)                           |
|                             | RA10012  | TSA 六标七色多重荧光染色试剂盒 (mIHC)                           |
| IHC 检测试剂盒                   | RA10006  | HRP Anti-Mouse/Rabbit IHC Detection System         |
|                             | RA10007  | Polymer-HRP Anti-Mouse/Rabbit IHC Detection System |
| 抗体标记试剂盒                     | RE80004p | 辣根过氧化物酶(HRP)抗体标记试剂盒                                |
|                             | RE80002q | Sulfo-NHS-生物素标记试剂盒                                 |
|                             | RE80007p | Cy3 荧光素标记试剂盒                                       |
|                             | RE80011p | Fluor488 荧光素标记试剂盒                                  |
|                             | RE80017p | Fluor750 荧光素标记试剂盒                                  |
|                             | RE80005p | 藻红蛋白(R-PE) 抗体快速标记试剂盒                               |
|                             | RE80040  | PE-Cy7 串联染料抗体快速标记试剂盒                               |
| 稳转细胞系构建服务<br>(免费赠送全膜 WB 验证) | TS-0001  | 过表达稳转细胞系构建                                         |
|                             | TS-0002  | 敲低稳转细胞系构建                                          |
|                             | TS-0003  | 敲除细胞系构建                                            |

限于篇幅，更多产品详见官网：<https://www.enkilife.cn>