

产品名称: eIF2 $\alpha$  Rabbit Polyclonal Antibody  
产品货号: APRab10368



## 产品概述 (Summary)

|                        |                                          |
|------------------------|------------------------------------------|
| 产品名称 (Production Name) | eIF2 $\alpha$ Rabbit Polyclonal Antibody |
| 描述 (Description)       | Rabbit polyclonal Antibody               |
| 宿主 (Host)              | Rabbit                                   |
| 应用 (Application)       | WB,IHC,ICC/IF,ELISA                      |
| 种属反应性 (Reactivity)     | Human,Mouse,Rat,Monkey,Fish              |

## 产品性能 (Performance)

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| 偶联物 (Conjugation)   | Unconjugated                                                                                      |
| 修饰 (Modification)   | Unmodified                                                                                        |
| 同种型 (Isotype)       | IgG                                                                                               |
| 克隆 (Clonality)      | Polyclonal                                                                                        |
| 形式 (Form)           | Liquid                                                                                            |
| 存放说明 (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. |
| 纯化方式 (Purification) | Affinity purification                                                                             |

## 免疫原信息 (Immunogen)

|                        |                                                                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 基因名 (Gene Name)        | EIF2S1                                                                                                                                                         |
| 别名 (Alternative Names) | EIF2S1; EIF2A; Eukaryotic translation initiation factor 2 subunit 1; Eukaryotic translation initiation factor 2 subunit alpha; eIF-2-alpha; eIF-2A; eIF-2alpha |
| 基因 ID (Gene ID)        | 1965.0                                                                                                                                                         |
| 蛋白 ID (SwissProt ID)   | P05198.The antiserum was produced against synthesized peptide derived from human eIF2 alpha. AA range:21-70                                                    |

## 产品应用 (Application)

|                          |                                                                        |
|--------------------------|------------------------------------------------------------------------|
| 稀释比 (Dilution Ratio)     | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:20000 |
| 蛋白分子量 (Molecular Weight) | 38kDa                                                                  |

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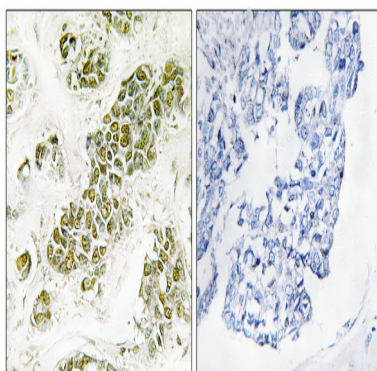
## 研究背景 (Background)

The translation initiation factor EIF2 catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. Binding occurs as a ternary complex of methionyl-tRNA, EIF2, and GTP. EIF2 is composed of 3 nonidentical subunits, the 36-kD EIF2-alpha subunit (EIF2S1), the 38-kD EIF2-beta subunit (EIF2S2; MIM 603908), and the 52-kD EIF2-gamma subunit (EIF2S3; MIM 300161). The rate of formation of the ternary complex is modulated by the phosphorylation state of EIF2-alpha (Ernst et al., 1987 [PubMed 2948954]).[supplied by OMIM, Feb 2010],function:Functions in the early steps of protein synthesis by forming a ternary complex with GTP and initiator tRNA. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF-2 and release of an eIF-2-GDP binary complex. In order for eIF-2 to recycle and catalyze another round of initiation, the GDP bound to eIF-2 must exchange with GTP by way of a reaction catalyzed by eIF-2B.,PTM:Substrate for at least 4 kinases: EIF2AK3/PERK, GCN2, HRI and PKR. Phosphorylation stabilizes the eIF-2/GDP/eIF-2B complex and prevents GDP/GTP exchange reaction, thus impairing the recycling of eIF-2 between successive rounds of initiation and leading to global inhibition of translation. In case of infection by vaccinia virus or rotavirus A, eIF2S1 phosphorylation state is modulated.,similarity:Belongs to the eIF-2-alpha family.,similarity:Contains 1 S1 motif domain.,subunit:Heterotrimer composed of an alpha, a beta and a gamma chain. Component of an EIF2 complex at least composed of CUGBP1, CALR, CALR3, EIF2S1, EIF2S2, HSP90B1 and HSPA5.,

## 研究领域 (Research Area)

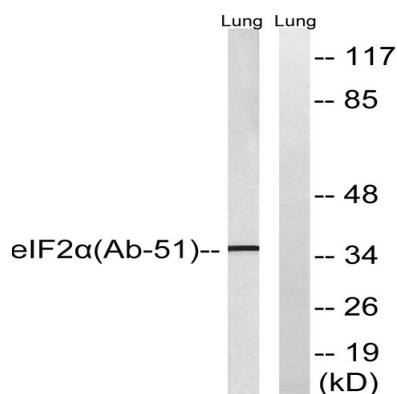
Epigenetics and Nuclear Signaling

## 图片 (Image Data)

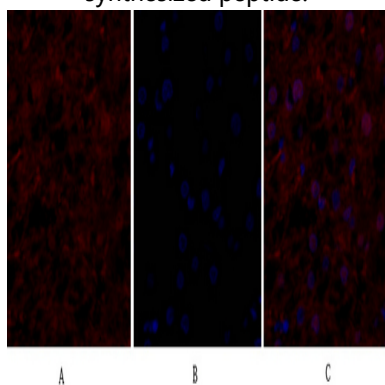


Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using eIF2 alpha Antibody. The picture on the right is blocked with the synthesized peptide.

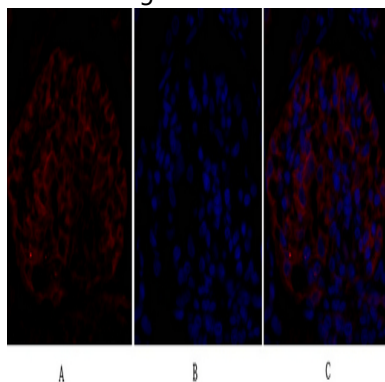
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Western blot analysis of lysates from rat lung, using eIF2 alpha Antibody. The lane on the right is blocked with the synthesized peptide.

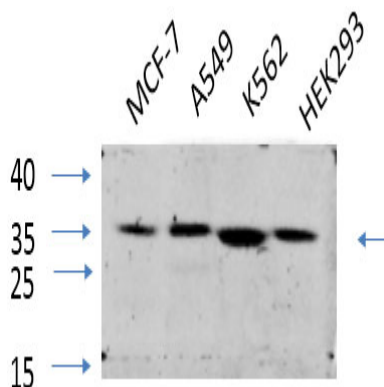


Immunofluorescence analysis of human-liver tissue. 1,eIF2 $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

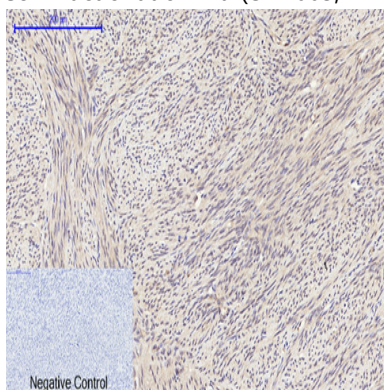


Immunofluorescence analysis of rat-kidney tissue. 1,eIF2 $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

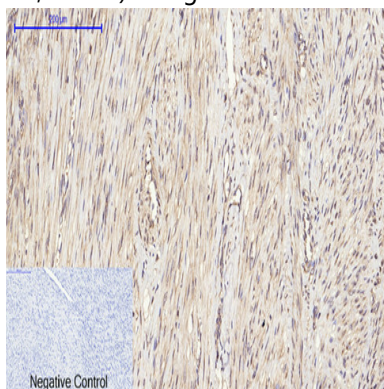
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Western Blot analysis of various cells using primary antibody diluted at 1:1000 (4°C overnight) . Secondary antibody: Goat Anti-rabbit IgG IRDye 800 ( diluted at 1:5000, 25°C, 1 hour) . Cell lysate was extracted by Minute™ Plasma Membrane Protein Isolation and Cell Fractionation Kit (SM-005, Inventbiotech,MN,USA) .

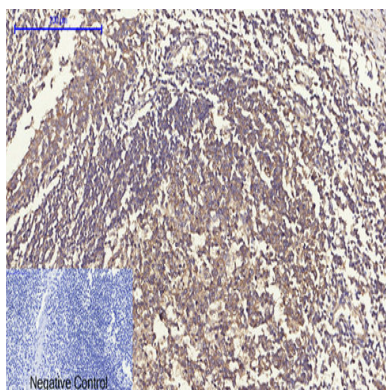


Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1,eIF2 $\alpha$  Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min) . Negative control was used by secondary antibody only.

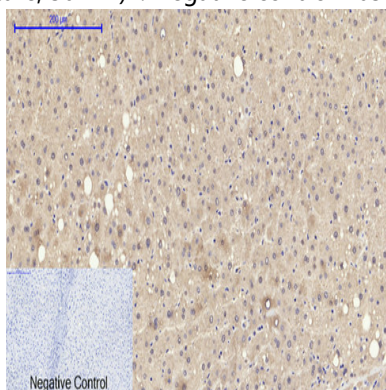


Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1,eIF2 $\alpha$  Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min) . Negative control was used by secondary antibody only.

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Immunohistochemical analysis of paraffin-embedded Human-Tonsil tissue. 1,eIF2 $\alpha$  Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min) . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1,eIF2 $\alpha$  Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min) . Negative control was used by secondary antibody only.

### 注意事项 (Note)

For research use only .