

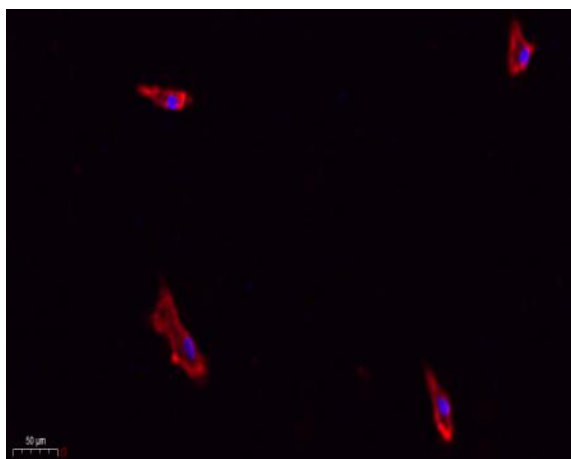
eIF2 α Polyclonal Antibody

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|------------------------------|---|
| Catalog No : | YT1507 |
| Reactivity : | Human;Mouse;Rat;Monkey;Fish |
| Applications : | IF;WB;IHC;ELISA |
| Target : | eIF2 α |
| Fields : | >>Autophagy - animal;>>Protein processing in endoplasmic reticulum;>>Apoptosis;>>Non-alcoholic fatty liver disease;>>Alzheimer disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Hepatitis C;>>Measles;>>Influenza A;>>Herpes simplex virus 1 infection;>>Lipid and atherosclerosis |
| Gene Name : | EIF2S1 |
| Protein Name : | Eukaryotic translation initiation factor 2 subunit 1 |
| Human Gene Id : | 1965 |
| Human Swiss Prot No : | P05198 |
| Mouse Gene Id : | 13665 |
| Mouse Swiss Prot No : | Q6ZWX6 |
| Rat Gene Id : | 54318 |
| Rat Swiss Prot No : | P68101 |
| Immunogen : | The antiserum was produced against synthesized peptide derived from human eIF2 alpha. AA range:21-70 |
| Specificity : | eIF2 α Polyclonal Antibody detects endogenous levels of eIF2 α protein. |
| Formulation : | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |

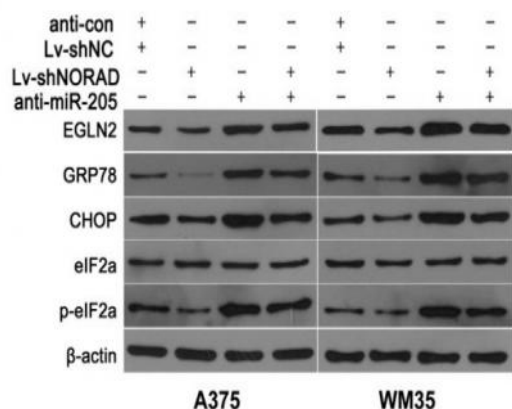
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|-------------------------------|--|
| Source : | Polyclonal, Rabbit,IgG |
| Dilution : | IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000. Not yet tested in other applications. |
| Purification : | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Concentration : | 1 mg/ml |
| Storage Stability : | -15°C to -25°C/1 year(Do not lower than -25°C) |
| Observed Band : | 38kD |
| 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 : | 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 |
| Subcellular Location : | Cytoplasm, Stress granule . Colocalizes with NANOS3 in the stress granules. . |
| Expression : | B cells,Brain,Fibroblast,Placenta, |
| Tag : | orthogonal,hot |
| Sort : | 1 |
| No3 : | ab169528 |

| | |
|------------------------|------------|
| No4 : | 1 |
| Host : | Rabbit |
| Modifications : | Unmodified |

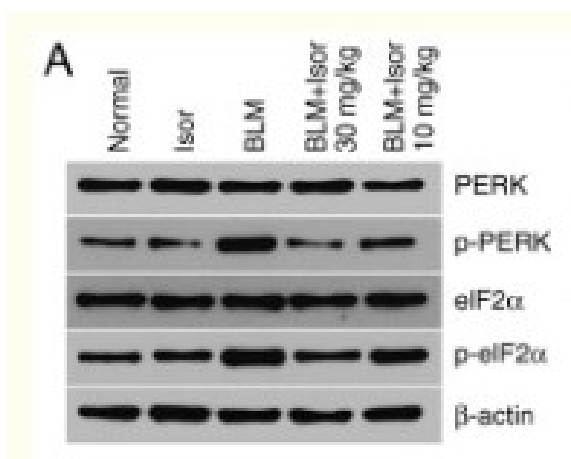
Products Images



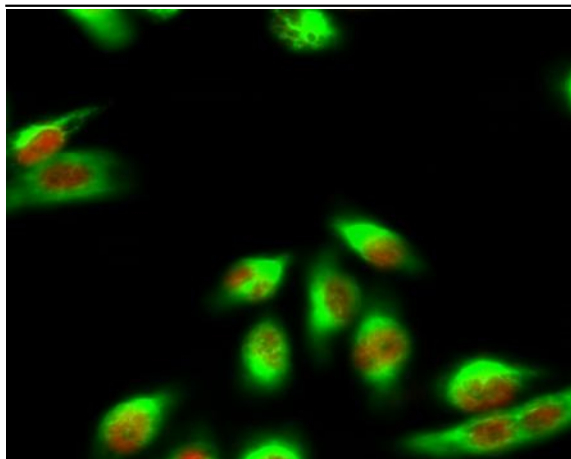
Immunofluorescence analysis of A549. 1, primary Antibody (red) was diluted at 1:200 (4 °C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min.



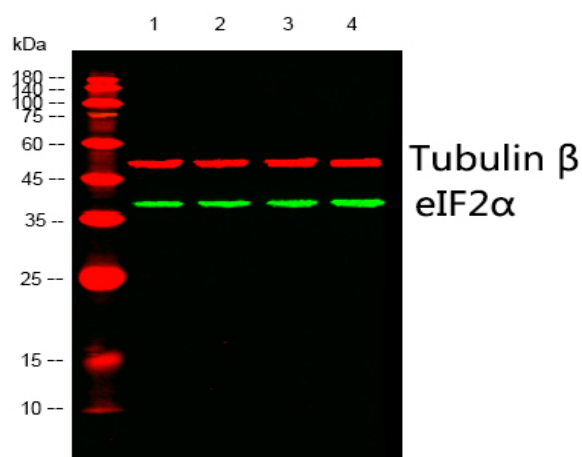
Chen, Yong, et al. "Overexpression of long non-coding RNA NORAD promotes invasion and migration in malignant melanoma via regulating the MIR-205-EGLN2 pathway." *Cancer medicine* (2019).



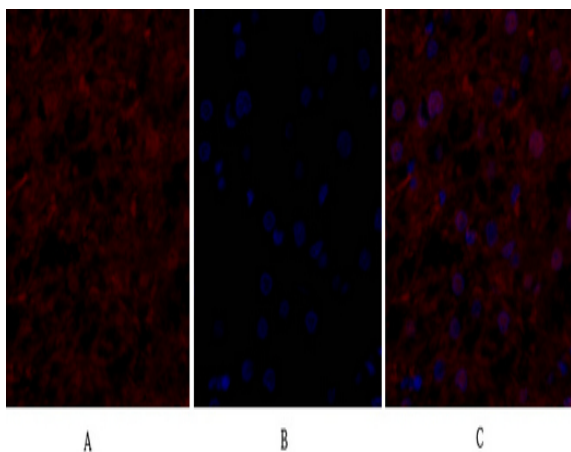
Zheng, Qing, et al. "Isorhamnetin protects against bleomycin-induced pulmonary fibrosis by inhibiting endoplasmic reticulum stress and epithelial-mesenchymal transition." *International journal of molecular medicine* 43.1 (2019): 117-126.



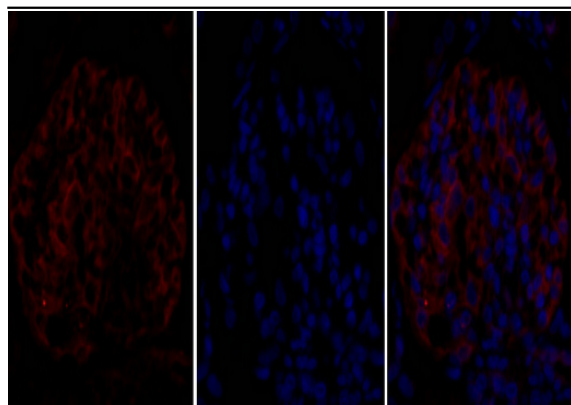
Immunofluorescence analysis of HeLa cell. 1,eIF2α Polyclonal Antibody(red) was diluted at 1:200(4° overnight). Caspase 9 Monoclonal Antibody(3-20)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



Western blot analysis of lysates from 1) MCF-7, 2) A549, 3) K562, 4) HEK293 cells, (Green) primary antibody was diluted at 1:1000, 4° over night, Dylight 800 secondary antibody(Immunoway:RS23920)was diluted at 1:10000, 37° 1hour. (Red) Tubulin β Monoclonal Antibody(5G3) (Immunoway:YM3030) antibody was diluted at 1:5000 as loading control, 4° over night,Dylight 680 secondary antibody(Immunoway:RS23710)was diluted at 1:10000, 37° 1hour.

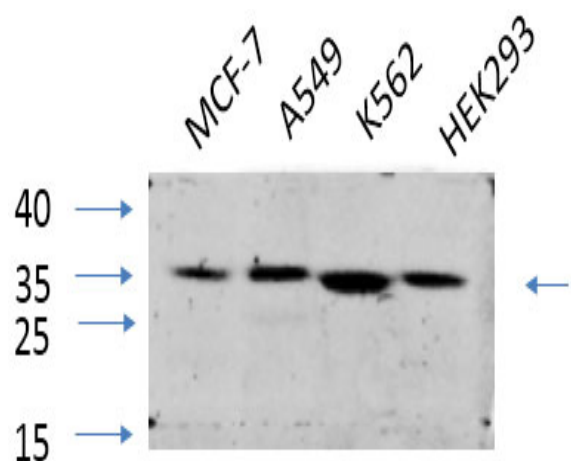


Immunofluorescence analysis of human-liver tissue. 1,eIF2α Polyclonal Antibody(red) was diluted at 1:200(4° C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

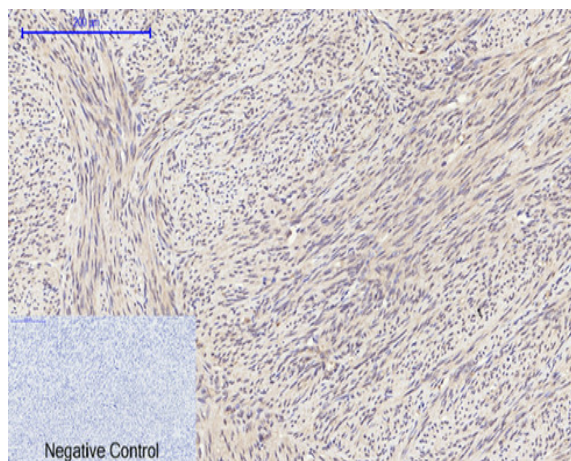


A B C

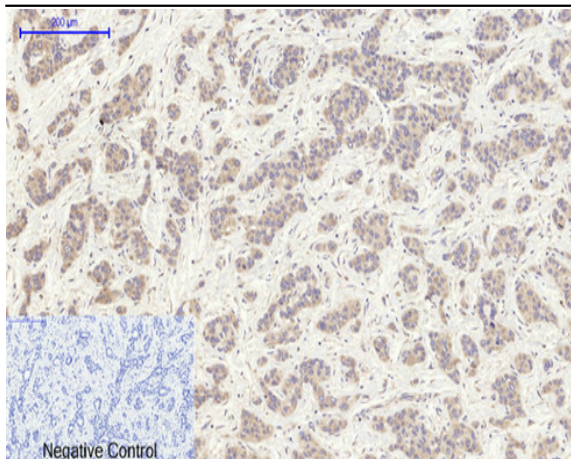
Immunofluorescence analysis of rat-kidney tissue. 1,eIF2 α Polyclonal Antibody(red) was diluted at 1:200(4 °C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



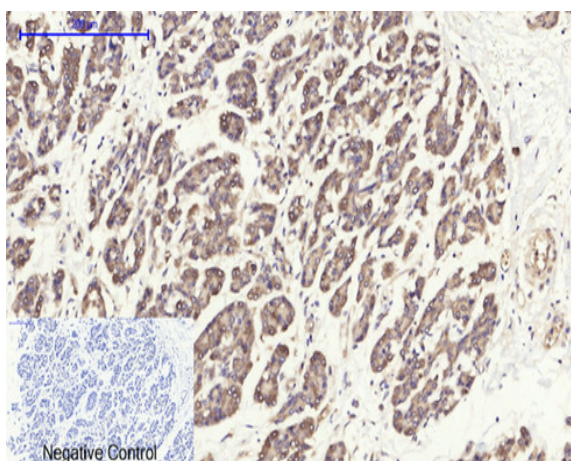
Western Blot analysis of various cells using primary antibody diluted at 1:1000(4 °C overnight). Secondary antibody:Goat Anti-rabbit IgG IRDye 800(diluted at 1:5000, 25 °C, 1 hour). Cell lysate was extracted by Minute™ Plasma Membrane Protein Isolation and Cell Fractionation Kit(SM-005, Inventbiotech,MN,USA).



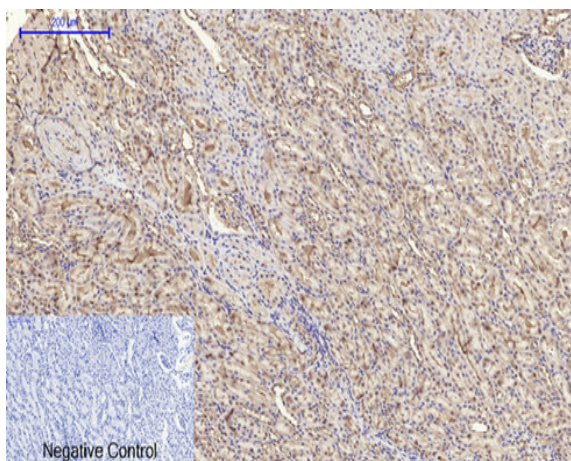
Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1,eIF2 α Polyclonal Antibody was diluted at 1:200(4 °C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used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



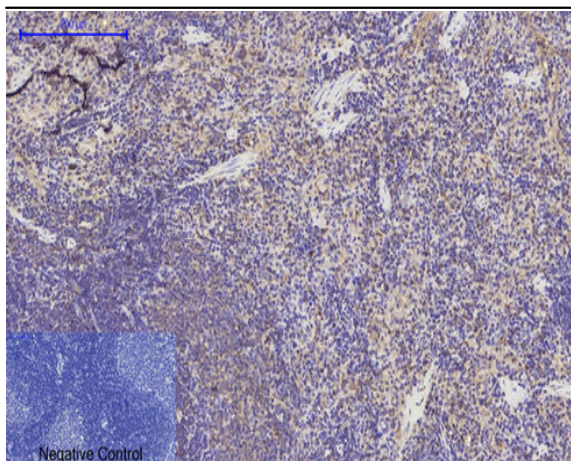
Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,eIF2 α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was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



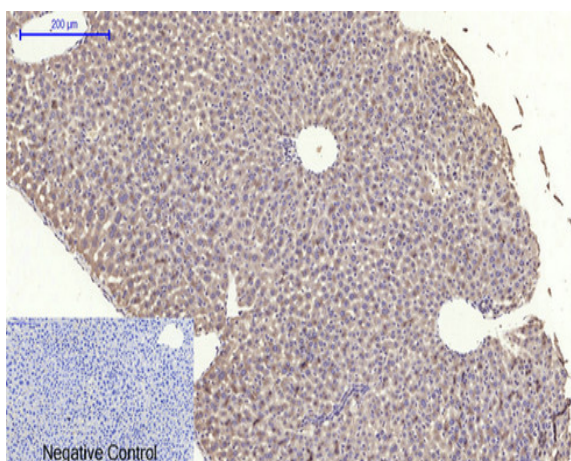
Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1,eIF2 α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control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



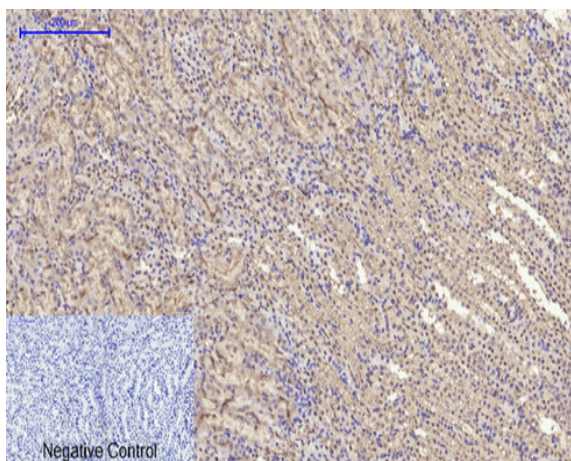
Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1,eIF2 α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by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



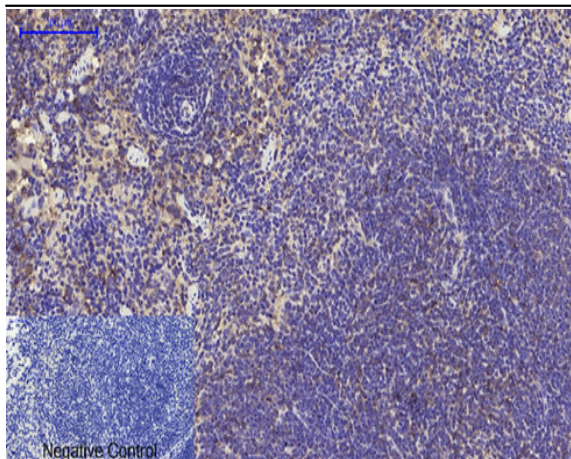
Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue. 1, eIF2α Polyclonal Antibody was diluted at 1:200(4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1, eIF2α 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 Mouse-kidney tissue. 1, eIF2α 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 Mouse spleen tissue. 1, eIF2 α 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.