[KD Validated] Anti-EIF4A1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021444

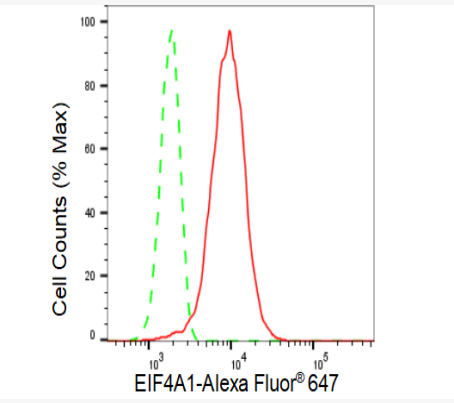
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
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.	79S72Q22
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human eIF4A1
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-EIF4A1 Rabbit mAb [79S72Q22] is for research use only and not for use in diagnostic or therapeutic procedures.

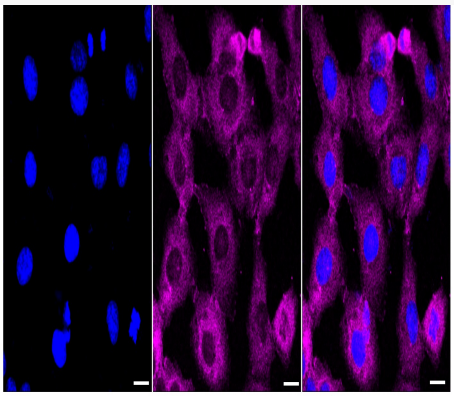
Protein Information

Synonyms	EIF4A1; Eukaryotic Translation Initiation Factor 4A1; DDX2A; EIF-4A; EIF4A; ATP-Dependent RNA Helicase EIF4A-1; Eukaryotic Initiation Factor 4A-I; EIF-4A-I; EIF4A-I; Eukaryotic Translation Initiation Factor 4A, Isoform 1; Eukaryotic Translation Initiation Factor 4A; Eukaryotic Initiation Factor 4A; EC 3.6.4.13; EC 3.6.1.
Calculated MW	Calculated MW: 46 kDa, Observed MW: 46 kDa
Uniprot ID	P60842
Gene ID	1973
Background	ATP-dependent RNA helicase which is a subunit of the eIF4F complex involved in cap recognition and is required for mRNA binding to ribosome. In the current model of translation initiation, eIF4A unwinds RNA secondary structures in the 5'-UTR of mRNAs which is necessary to allow efficient binding of the small ribosomal subunit, and subsequent scanning for the initiator codon.

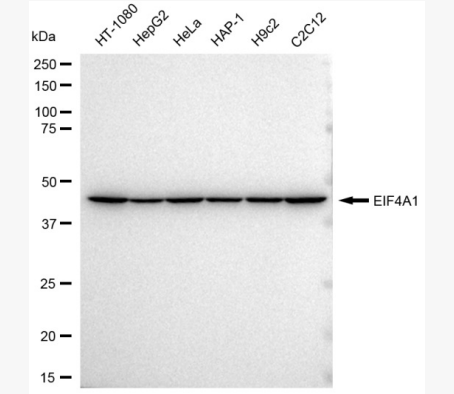
Validation Images



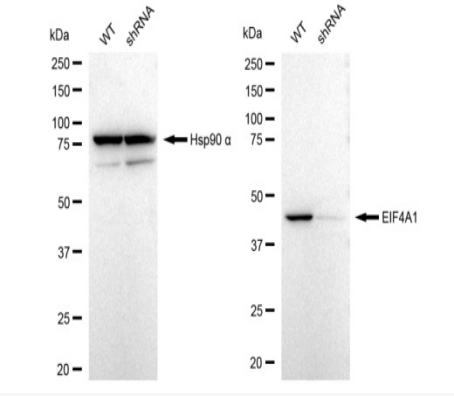
Flow cytometric analysis of EIF4A1 expression in HT-1080 cells using EIF4A1 antibody (R021444, 1:2,000). Green, isotype control; red, EIF4A1.



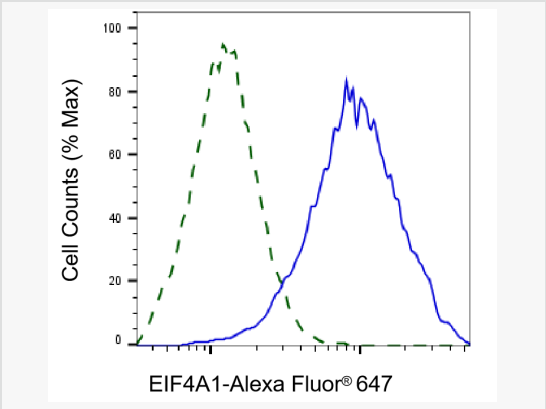
Immunocytochemical staining of HT-1080 cells with EIF4A1 antibody (R021444, 1:1,000) . Nuclei were stained blue with DAPI;EIF4A1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



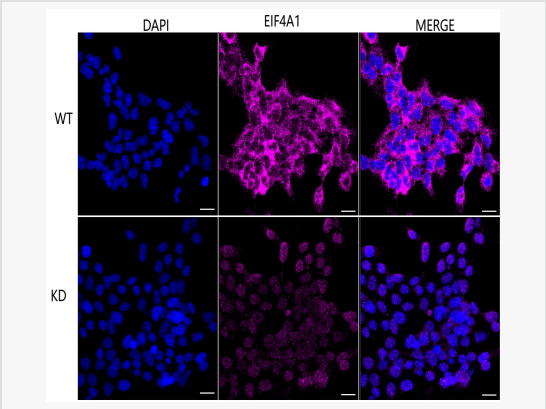
Western blotting analysis using EIF4A1 antibody (R021444). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with EIF4A1 antibody (R021444, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using EIF4A1 antibody (R021444). EIF4A1 expression in wild type (WT) and EIF4A1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with EIF4A1 antibody (R021444, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of EIF4A1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with EIF4A1 antibody (R021444, 1:2,000) and analyzed using BD flow cytometer.



Immunocytochemical staining of HeLa cells using EIF4A1 antibody (R021444, 1:1,000), Top panel: wild-type (WT); Bottom panal: EIF4A1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; EIF4A1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.