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KD-Validated Anti-APPL1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1375

Specification

KD-Validated Anti-APPL1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q9UKG1
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 80 kDa , observed, 80 kDa KDa**
Gene Name	**APPL1**
Aliases	**APPL1; Adaptor Protein, Phosphotyrosine Interacting With PH Domain And Leucine Zipper 1; APPL; DCC-Interacting Protein 13-Alpha; Adaptor Protein, Phosphotyrosine Interaction, PH Domain And Leucine Zipper Containing 1; Adapter Protein Containing PH Domain, PTB Domain And Leucine Zipper Motif 1; Dip13-Alpha; Adaptor Protein Containing PH Domain, PTB Domain And Leucine Zipper Motif 13; Signaling Adaptor Protein DIP13alpha; AKT2 Interactor; DIP13alpha; KIAA1428; MODY14; DIP13A**
Immunogen	**A synthesized peptide derived from human APPL**

KD-Validated Anti-APPL1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**26060**

Other Names
DCC-interacting protein 13-alpha, Dip13-alpha, Adapter protein containing PH domain, PTB domain and leucine zipper motif 1, APPL1 (HGNC:24035)

KD-Validated Anti-APPL1 Rabbit Monoclonal Antibody - Protein Information

Name APPL1 (HGNC:24035)

Function
Multifunctional adapter protein that binds to various membrane receptors, nuclear factors and signaling proteins to regulate many processes, such as cell proliferation, immune response, endosomal trafficking and cell metabolism (PubMed:10490823, PubMed:15016378, PubMed:<a

href="http://www.uniprot.org/citations/19661063" target="_blank">19661063, PubMed:26073777, PubMed:26583432). Regulates signaling pathway leading to cell proliferation through interaction with RAB5A and subunits of the NuRD/MeCP1 complex (PubMed:15016378). Functions as a positive regulator of innate immune response via activation of AKT1 signaling pathway by forming a complex with APPL1 and PIK3R1 (By similarity). Inhibits Fc-gamma receptor-mediated phagocytosis through PI3K/Akt signaling in macrophages (By similarity). Regulates TLR4 signaling in activated macrophages (By similarity). Involved in trafficking of the TGFBR1 from the endosomes to the nucleus via microtubules in a TRAF6-dependent manner (PubMed:26583432). Plays a role in cell metabolism by regulating adiponecting and insulin signaling pathways (PubMed:19661063, PubMed:24879834, PubMed:26073777). Required for fibroblast migration through HGF cell signaling (By similarity). Positive regulator of beta-catenin/TCF-dependent transcription through direct interaction with RUVBL2/reptin resulting in the relief of RUVBL2-mediated repression of beta-catenin/TCF target genes by modulating the interactions within the beta-catenin-reptin-HDAC complex (PubMed:19433865).

Cellular Location
Early endosome membrane; Peripheral membrane protein. Nucleus. Cytoplasm. Endosome. Cell projection, ruffle {ECO:0000250|UniProtKB:Q8K3H0}. Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:Q8K3H0}. Note=Early endosomal membrane-bound and nuclear. Translocated into the nucleus upon release from endosomal membranes following internalization of EGF

Tissue Location
High levels in heart, ovary, pancreas and skeletal muscle.

KD-Validated Anti-APPL1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-APPL1 Rabbit Monoclonal Antibody - Images

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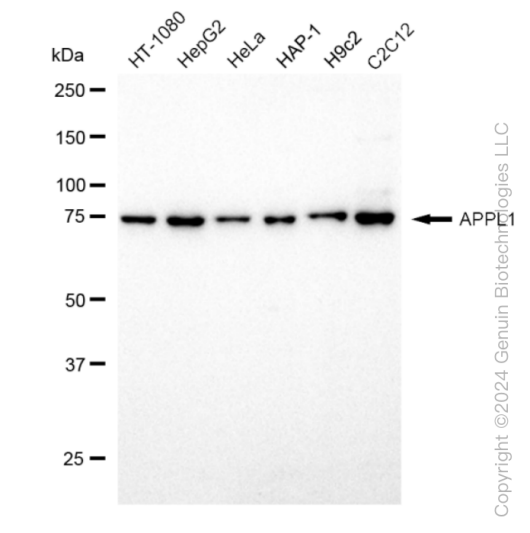
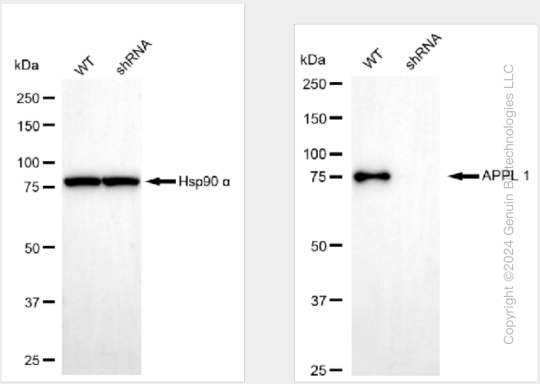
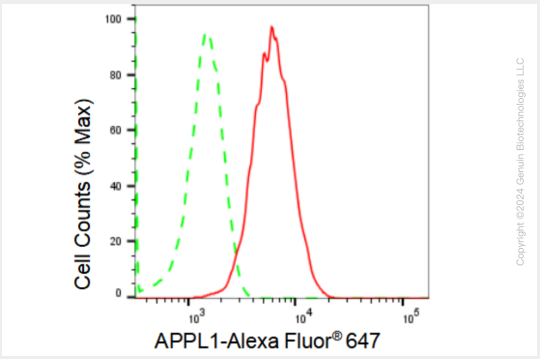


Western blotting analysis using anti-APPL1 antibody (Cat#AGI1375). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-APPL1 antibody (Cat#AGI1375, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-APPL1 antibody (Cat#AGI1375). APPL1 expression in wild type (WT) and APPL1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-APPL1 antibody (Cat#AGI1375, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of APPL1 expression in HepG2 cells using APPL1 antibody (Cat#AGI1375, 1:2,000). Green, isotype control; red, APPL1.

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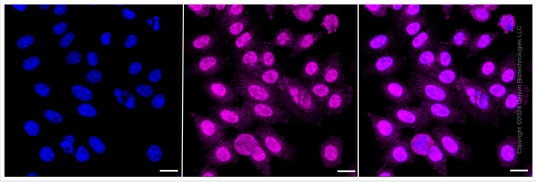

Immunocytochemical staining of HepG2 cells with APPL1 antibody (Cat#AGI1375, 1:1,000). Nuclei were stained blue with DAPI; APPL1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.