

Mouse DDX1 Monoclonal Antibody | anti-DDX1 antibody

Anti-DDX1 Antibody (monoclonal, 2D4)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19379	Mouse	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

DDX1; Monoclonal Antibody; Anti-DDX1 Antibody (monoclonal; 2D4); ATP-dependent RNA helicase DDX1; EC 3. 6. 4. 13; DEAD box protein 1; DEAD box protein retinoblastoma; DBP-RB; DEAD-box helicase 1; anti-DDX1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	Mouse IgG2a
Clone Number	2D4
Specificity	Mouse IgG monoclonal antibody for DDX1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-DDX1 antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry)
Application Notes	WB: 0.1-0.25ug/ml Human, Mouse, Rat IHC-P: 2-5ug/ml Human, Rat FC/FACS/FCM: 1-3ug/1x106 cells Human
Immunogen	E Coli-derived human DDX1 recombinant protein (Position: K562-F740).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of MCF-7 cells using anti-DDX1 antibody (AAA19379). Overlay histogram showing MCF-7 cells stained with AAA19379 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-DDX1 Antibody (AAA19379, 1µg/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG (BA1126, 5-10µg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1µg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of DDX1 using anti-DDX1 antibody (AAA19379). DDX1 was detected in paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml mouse anti-DDX1 Antibody (AAA19379) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



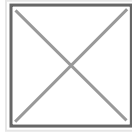
IHC (Immunohistochemistry)

Figure 4. IHC analysis of DDX1 using anti-DDX1 antibody (AAA19379). DDX1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-DDX1 Antibody (AAA19379) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



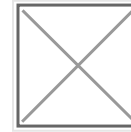
IHC (Immunohistochemistry)

Figure 3. IHC analysis of DDX1 using anti-DDX1 antibody (AAA19379). DDX1 was detected in paraffin-embedded section of human pancreatic cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-DDX1 Antibody (AAA19379) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 2. IHC analysis of DDX1 using anti-DDX1 antibody (AAA19379). DDX1 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-DDX1 Antibody (AAA19379) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



WB (Western Blot)

Figure 1. Western blot analysis of DDX1 using anti-DDX1 antibody (AAA19379). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates Lane 2: human CACO-2 whole cell lysates Lane 3: human U20S whole cell lysates Lane 4: human HEK293 whole cell lysates Lane 5: human U87 whole cell lysates Lane 6: human HELA whole cell lysates Lane 7: human A549 whole cell lysates Lane 8: rat kidney tissue lysates Lane 9: mouse kidney tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with mouse anti-DDX1 antigen affinity purified monoclonal antibody (Catalog # AAA19379) at 0. 25 μg/mL overnight at 4 degree C, then washed with TBS-0. 1% Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system). A specific band was detected for DDX1 at approximately 86KD. The expected band size for DDX1 is at 86KD.

ADDITIONAL INFORMATION

Related Product Information for anti-DDX1 antibody	ATP-dependent RNA helicase DDX1 is an enzyme that in humans is encoded by the DDX1 gene. It is mapped to 2p24. 3. DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. This gene encodes a DEAD box protein of unknown function. It shows high transcription levels in 2 retinoblastoma cell lines and in tissues of neuroectodermal origin.
References	1. Chen HC, Lin WC, Tsay YG, Lee SC, Chang CJ (October 2002). "An RNA helicase, DDX1, interacting with poly(A) RNA and heterogeneous nuclear ribonucleoprotein K". The Journal of Biological Chemistry. 277 (43): 40403-9. 2. Cho WJ, Yoon WJ, Moon CH, Cha SJ, Song H, Cho HR, Jang SJ, Chung DK, Jeong CS, Park JW (November 2002). "Molecular cloning of a novel chaperone-like protein induced by rhabdovirus infection with sequence similarity to the bacterial extracellular solute-binding protein family 5". The Journal of Biological Chemistry. 277 (44): 41489-96. 3. Li L, Li HS, Pauza CD, Bukrinsky M, Zhao RY (2006). "Roles of HIV-1 auxiliary proteins in viral pathogenesis and host-pathogen interactions". Cell Research. 15 (11-12): 923-34.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4826686
NCBI GeneID	1653
NCBI Accession #	NP_004930
NCBI GenBank Nucleotide #	NM_004939

UniProt Accession #	Q92499 ; B4DME8 ; B4DPN6
Molecular Weight	68,712 Da
NCBI Official Full Name	ATP-dependent RNA helicase DDX1
NCBI Official Synonym Full Names	DEAD (Asp-Glu-Ala-Asp) box helicase 1
NCBI Official Symbol	DDX1
NCBI Official Synonym Symbols	DBP-RB; UKVH5d
NCBI Protein Information	ATP-dependent RNA helicase DDX1; DEAD (Asp-Glu-Ala-Asp) box polypeptide 1; DEAD box polypeptide 1; DEAD box protein 1; DEAD box protein retinoblastoma; DEAD box-1; DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1
UniProt Protein Name	ATP-dependent RNA helicase DDX1
UniProt Gene Name	DDX1
UniProt Synonym Gene Names	DBP-RB
UniProt Entry Name	DDX1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/ddx1-antibody-clone-2d4-western-blot-immunohistochemistry-flow-cytometry-elisa/19379>