Technical Bulletin

Anti-DDX6-Alexa488 antibody, Mouse monoclonal

Clone DDX6-34, purified from hybridoma cell culture

SAB4200879

Product Description

Monoclonal Anti-DDX6 antibody (mouse IgG1 isotype) is derived from the DDX6-34 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with partial recombinant protein corresponding to the N-terminal region of human DDX6 (GeneID: 1656), as immunogen. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO-2). The antibody is purified from culture supernatant of hybridoma cells which is conjugated to Alexa488 dye.

Monoclonal Anti-DDX6 antibody specifically recognizes DDX6 from human, mouse, monkey, canine and bovine origin. The antibody may be used in immunofluorescence techniques to detection of DDX6.

Probable ATP-dependent RNA helicase DDX6 also known as DEAD box protein 6 or Oncogene RCK/p54, is a conserved member of the DEAD-box RNA helicase family. DDX6 plays a central role in P-body assembly in mammals and its depletion prevents P-body assembly leading to P-bodies disappearance.[1] DDX6 coordinates RNA and ATP helicase binding activities and binds along the mRNA. DDX6 sequence specific binding at mRNA 5′ end, activates recruitment of the decapping complex, thus coupling translational repression and mRNA degradation.[1-2] DDX6 is considered to be a P-bodies marker due to its mediating role between translational repression and P-bodies formation and toits interaction with Ago2 and the RISC complex that also mediates translational silencing by miRNAs.[1-4]

Viruses like Hepatitis C virus (HCV) or West Nile virus (WNV) utilize the host cell DDX6 to promote virus infection by recruiting it to the viral replication sites where it is involved in stabilization of the viral genome and the shift between translation and replication.[2,5-6]

DDX6 was reported to be overexpressed in colorectal adenocarcinomas, gastric cancer and in most malignant cell lines.[7-9] It was suggested that DDX6 acted as an upstream cancerous enhancer through RNA-binding of *HER2* and FGFR2 mRNAs that positively regulates post-transcriptional processes in cancer cells.[7]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.5 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours. Protect from prolonged exposure to light.

Product Profile

Immunofluorescence:

A working concentration of 5-10 µg/mL is recommended using human U-2-OS cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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