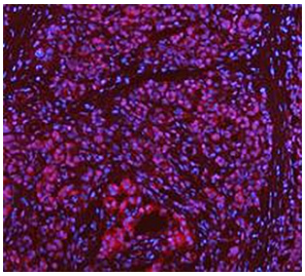
# DEAD box protein 1 Antibody / DDX1 (RQ8922)

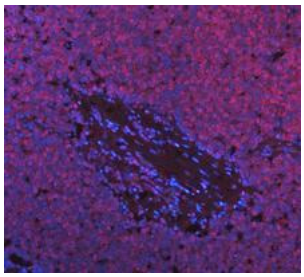
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ8922 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

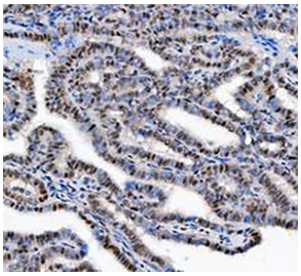
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide |
| **UniProt** | Q92499 |
| **Localization** | Nuclear, cytoplasmic |
| **Applications** | Western blot: 1-2ug/ml<br>Immunohistochemistry (FFPE): 2-5ug/ml<br>Flow cytometry: 1-3ug/million cells<br>Immunofluorescence: 5ug/ml<br>Immunoprecipitation: 2ug per 500ug of lysate<br>ELISA: 0.1-0.5ug/ml |
| **Limitations** | This DEAD box protein 1 antibody is available for research use only. |



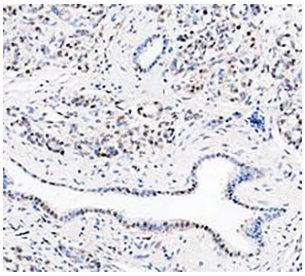
Immunofluorescent staining of FFPE human pancreas cancer tissue with DEAD box protein 1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



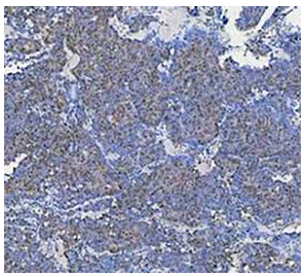
Immunofluorescent staining of FFPE human skin cancer tissue with DEAD box protein 1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



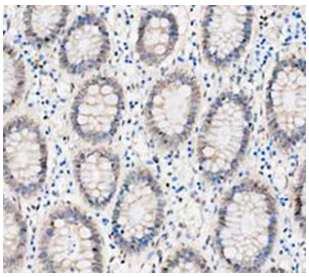
IHC staining of FFPE human ovarian cancer tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



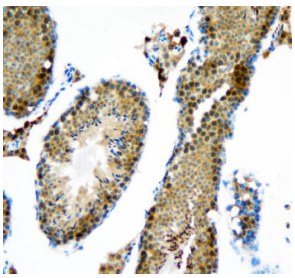
IHC staining of FFPE human pancreatic cancer tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



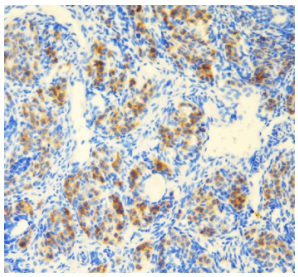
IHC staining of FFPE human skin cancer tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



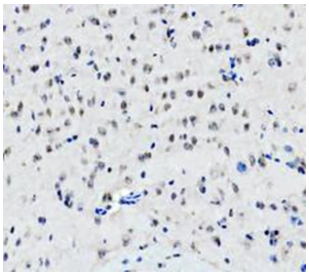
IHC staining of FFPE human colon tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



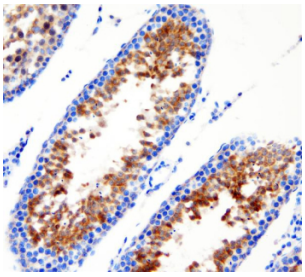
IHC staining of FFPE mouse testis tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



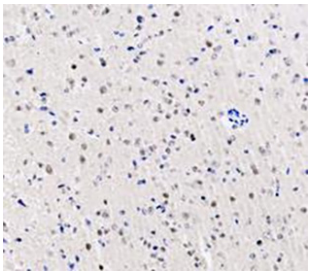
IHC staining of FFPE mouse ovary tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



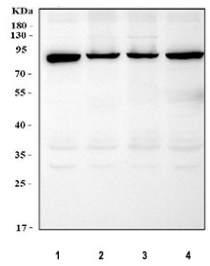
IHC staining of FFPE mouse brain tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



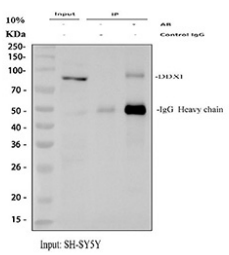
IHC staining of FFPE rat testis tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



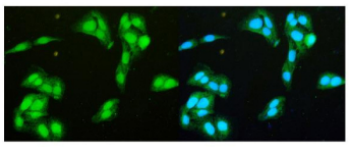
IHC staining of FFPE rat brain tissue with DEAD box protein 1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



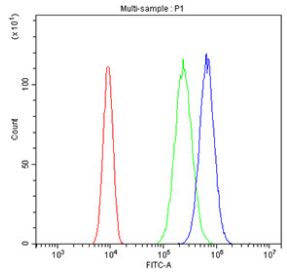

Western blot testing of human 1) K562, 2) Caco-2, 3) SH-SY5Y and 4) RT4 cell lysate with DEAD box protein 1 antibody. Predicted molecular weight ~86 kDa.




Immunoprecipitation of DEAD box protein 1 protein from 500ug of human SH-SY5Y whole cell lysate with 2ug of DEAD box protein 1 antibody.



Immunofluorescent staining of FFPE human U-2 OS cells with DEAD box protein 1 antibody (green, left and right) and DAPI nuclear stain (blue, right). HIER: steam section in pH6 citrate buffer for 20 min.




Flow cytometry testing of fixed and permeabilized human SiHa cells with DEAD box protein 1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= DEAD box protein 1 antibody.

## Description

DEAD box protein 1 (DDX1) is a member of the DEAD-box RNA helicase family, a group of proteins defined by the conserved Asp-Glu-Ala-Asp (DEAD) motif. These proteins participate in a wide variety of cellular processes involving RNA metabolism, including transcription, splicing, mRNA transport, and ribosome biogenesis. DEAD box protein 1 functions as an ATP-dependent RNA helicase, unwinding RNA secondary structures to facilitate proper RNA processing. Researchers often employ a DEAD box protein 1 antibody to study these fundamental processes in molecular and cellular biology.

In addition to its role in RNA metabolism, DEAD box protein 1 has been implicated in maintaining genomic stability. It interacts with DNA repair proteins and contributes to the repair of double-strand breaks, suggesting it acts at the interface between RNA regulation and DNA integrity. By using a DEAD box protein 1 antibody, researchers can explore its functions in cellular stress responses, DNA repair pathways, and cell cycle progression.

Elevated expression of DEAD box protein 1 has been observed in various cancers, linking it to tumor biology and uncontrolled cell proliferation. It has also been connected to viral replication, where it interacts with viral RNA to promote or regulate infection. These diverse roles make it a protein of interest in oncology, virology, and RNA biology. Employing a DEAD box protein 1 antibody provides valuable insights into its activity across multiple biological contexts.

NSJ Bioreagents provides a high-quality DEAD box protein 1 antibody validated for applications including western blot, immunohistochemistry, and immunoprecipitation. Choosing a reliable DEAD box protein 1 antibody ensures accurate and reproducible detection in studies of RNA helicases, genomic stability, and disease mechanisms.

## Application Notes

Optimal dilution of the DEAD box protein 1 antibody should be determined by the researcher.

## Immunogen

A human recombinant partial protein (amino acids K562-F740) was used as the immunogen for the DEAD box protein 1 antibody.

## Storage

After reconstitution, the DEAD box protein 1 antibody can be stored for up to one month at 4oC. For long-term, aliquot

and store at -20oC. Avoid repeated freezing and thawing.


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