

DDX3 (Phospho Thr322) Rabbit pAb

CatalogNo: YP1143 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 73kD (Calculated)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

IHC 1:100-1:300

WB 1:1000-1:5000

IF 1:200-1:1000

ELISA 1:10000

Not yet tested in other applications.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human DDX3/DEAD-box Protein 3 around the phosphorylation site of Thr322. AA range:466-515

Specificity

Phospho-DDX3 (T322) Polyclonal Antibody detects endogenous levels of DDX3 protein only when phosphorylated at T322. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):VAtpG

Target Information

Gene name DDX3X

Protein Name ATP-dependent RNA helicase DDX3X

Organism	Gene ID	UniProt ID
Human	1654 ;	O00571 ;
Mouse	13205 ;	Q62167 ;

Cellular Localization

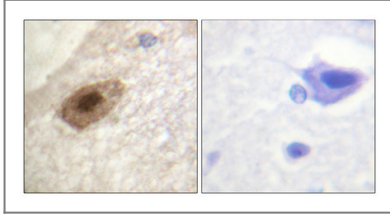
Cell membrane . Nucleus . Cytoplasm . Cytoplasm , Stress granule . Inflammasome . Cell projection , lamellipodium . Cytoplasm , cytoskeleton , microtubule organizing center , centrosome . Shuttles between the nucleus and the cytosol (PubMed:15507209 , PubMed:18636090 , PubMed:29899501 , PubMed:31575075 , PubMed:30131165) . Exported from the nucleus partly through the XPO1/CRM1 system and partly through NXF1/TAP (PubMed:15507209 , PubMed:18636090 , PubMed:18596238 , PubMed:31575075 , PubMed:30131165) . Localizes to nuclear pores on the outer side of the nuclear membrane (PubMed:15507209) . In the cytosol , partly colocalizes with mitochondria (PubMed:20127681) . At G0 , predominantly located in nucleus. In G1/S phase , predominantly cytoplasmic (PubMed:22034099) . During prophase/prometaphase , localizes in close proximity to the condensing chromosomes (PubMed:30131165 , PubMed:21730191) . During telophase , localizes around the newly synthesized nuclear membrane and in the cytoplasm (PubMed:22034099) . Colocalizes with TRPV4 at the plasma membrane. When TRPV4 channel is activated , intracellular Ca (2+) levels increase and the calmodulin/CAMKII pathway is activated , relocalizes to the nucleus (PubMed:29899501) . WNT3A stimulation promotes DDX3 recruitment to the plasma membrane (PubMed:23413191) . At the leading edge of migrating fibroblasts , colocalizes with CAPRIN1 and PABPC1 (PubMed:28733330) . Localizes to centrosome throughout the cell cycle and associates with TP53 at centrosome during mitosis (PubMed:28842590) . Translocates to the nucleus in response to HPIV-3 virus-mediated infection (PubMed:31575075) . .

Tissue specificity Widely expressed (PubMed:15294876) . In testis , expressed in spermatids (PubMed:15294876) . Expressed in epidermis and liver (at protein level) (PubMed:16818630 , PubMed:16301996) .

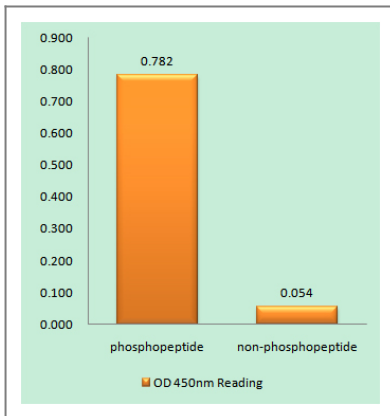
Function

Function:ATP-dependent RNA helicase. Acts as a cofactor for XPO1-mediated nuclear export of incompletely spliced HIV-1 Rev RNAs. Also involved in HIV-1 replication. Interacts specifically with hepatitis C virus core protein resulting in a change in intracellular location. ,similarity:Belongs to the DEAD box helicase family. ,similarity:Belongs to the DEAD box helicase family. DDX3/DED1 subfamily. ,similarity:Contains 1 helicase ATP-binding domain. ,similarity:Contains 1 helicase C-terminal domain. ,subcellular location:Located predominantly in nuclear speckles and , at low levels , throughout the cytoplasm. Located to the outer side of nuclear pore complexes (NPC) . Shuttles between the nucleus and the cytoplasm in a XPO1-dependent manner. ,subunit:Found in a complex with Rev and XPO1. Interacts with XPO1 and TDRD3. Interacts with HCV core protein. ,

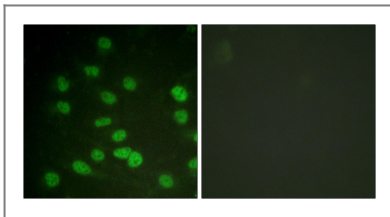
Validation Data



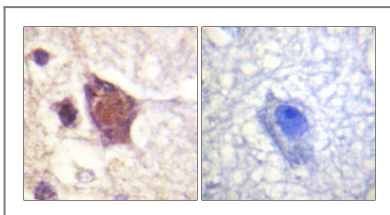
Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°C overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



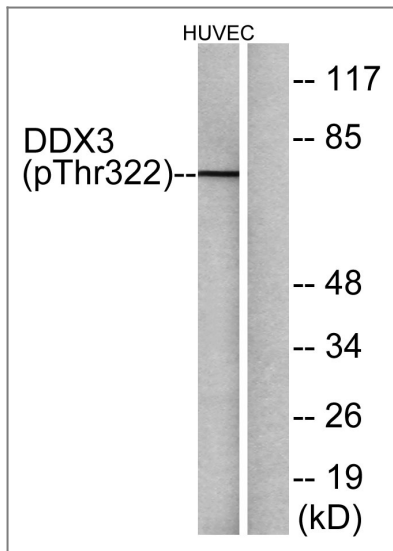
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using DDX3/DEAD-box Protein 3 (Phospho-Thr322) Antibody



Immunofluorescence analysis of HUVEC cells treated with serum 20% 30', using DDX3/DEAD-box Protein 3 (Phospho-Thr322) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using DDX3/DEAD-box Protein 3 (Phospho-Thr322) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of DDX3/DEAD-box Protein 3 (Phospho-Thr322) Antibody. The lane on the right is blocked with the DDX3/DEAD-box Protein 3 (Phospho-Thr322) peptide.

Contact information

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DDX3 (Phospho Thr322) Rabbit pAb

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