

#2635 Store at -20°C

DDX3 Antibody


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Hm Mk	Endogenous	75	Rabbit	#O00571	1654

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	DDX3 Antibody detects endogenous levels of total DDX3 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal sequence of human DDX3. Antibodies are purified using protein A and peptide affinity chromatography.	
Background	<p>The DEAD box family of RNA helicases is characterized in part by a common D-E-A-D amino acid motif. The family is composed of a growing number of proteins found in a wide range of organisms from bacteria to mammals. DEAD helicases have distinct biological functions in RNA metabolism and ribonucleoprotein (RNP) processing (reviewed in 1,2).</p> <p>DDX3 is a DEAD box family RNA helicase with diverse cellular functions. DDX3 is required for nuclear export of HIV-1 viral transcripts, possibly in a complex with the viral Rev protein and host cofactor CRM1 (3). DDX3 is required for hepatitis C virus (HCV) RNA replication (4) and its expression is downregulated in hepatitis B virus (HBV) associated hepatocellular carcinoma (HCC) (5).</p> <p>Recent evidence suggests that DDX3 functions as a tumor suppressor protein. Its expression inhibits tumor cell colony formation and increases expression of the cdk inhibitor p21 Waf1/Cip1. Low DDX3 expression has been shown in HCC (5,6), and aberrant subcellular localization occurs in many squamous cell carcinomas (6). Reduced DDX3 expression in cultured cells causes a diminished dependence on serum for cell proliferation and changes in cyclin D1 and p21 Waf1/Cip1 expression (5).</p> <p>DDX3 is phosphorylated at Thr204 and Thr323 by the mitotic cyclin dependent kinase, cyclin B/cdc2. This phosphorylation is thought to cause a loss of DDX3 function and a concomitant repression of ribosome biogenesis and translation in mitosis (7).</p>	
Background References	<ol style="list-style-type: none"> 1. Rocak, S. and Linder, P. (2004) <i>Nat Rev Mol Cell Biol</i> 5, 232-41. 2. Linder, P. (2006) <i>Nucleic Acids Res</i> 34, 4168-80. 3. Yedavalli, V.S. et al. (2004) <i>Cell</i> 119, 381-92. 4. Ariumi, Y. et al. (2007) <i>J Virol</i> 81, 13922-6. 5. Chang, P.C. et al. (2006) <i>Oncogene</i> 25, 1991-2003. 6. Chao, C.H. et al. (2006) <i>Cancer Res</i> 66, 6579-88. 7. Sekiguchi, T. et al. (2007) <i>Biochem Biophys Res Commun</i> 356, 668-73. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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