

#15076 Store at -20C

DDX41 (D3F1Z) Rabbit mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	75	Rabbit IgG	#Q9UJV9	51428

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

DDX41 (D3F1Z) Rabbit mAb recognizes endogenous levels of total DDX41 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala98 of human DDX41 protein.

Background

The DEAD box helicase DDX41 is an antiviral protein that senses cytosolic DNA and activates the signaling adaptor STING to induce type I interferon production (1). The recognition of bacterial dinucleotides by DDX41 also leads to STING-dependent type I interferon production (2). Research studies demonstrate that knockdown of DDX41 attenuates poly(dA:dT)-induced IFN-β production and cyclic GMP-AMP synthase (cGAS, MB21D1) induction (3). The DDX41 protein is thought to be an initial constitutively expressed DNA sensor that activates type I interferon production and leads to cGAS amplification of type I interferon production (3). DDX41 is negatively regulated by the E3 ligase TRIM21 (4). Both germline and somatic mutations in the corresponding *DDX41* gene are associated with myeloid neoplasms (5,6).

Background References

1. Zhang, Z. et al. (2011) *Nat Immunol* 12, 959-65.
2. Parvatiyar, K. et al. (2012) *Nat Immunol* 13, 1155-61.
3. Ma, F. et al. (2015) *J Immunol* 194, 1545-54.
4. Zhang, Z. et al. (2013) *Nat Immunol* 14, 172-8.
5. Ding, L. et al. (2012) *Nature* 481, 506-10.
6. Polprasert, C. et al. (2015) *Cancer Cell* 27, 658-70.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

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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