Data Sheet (Cat.No.TMAY-00095)

TargetMol

Anti-DDX4 Antibody (5D840)

Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5D840
Purification:	Protein A

Applications

Verified Activity:	1. Immunochemical staining of human DDX4 in human testis with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). 2. Immunofluorescence staining of DDX4 in hESC-H9 cells. Cells were fixed with 4% PFA, permeabilzed with 0.5% Triton X-100 in PBS,blocked with 10% serum, and incubated with mouse anti-DDX4 monoclonal antibody (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-mouse IgG secondary antibody (green). Positive staining was localized to Cytoplasm.
Application:	ICC/IF,IHC-P
Recommended	IHC-P: 1:50-1:200; ICC-IF: 1:20-1:100

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: C-terminus of the human DDX4.
Antigen Species:	Human
Synonyms:	VASA

Research Background

DDX4 (DEAD box polypeptide 4), characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), is an RNA helicase which is implicated in various cellular processes involving the alteration of RNA secondary structure, such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. DDX4 is known to be a germ cell-specific protein and is used as a sorting marker of germline stem cells for the production of oocytes. The active vitamin D treatment prohibited the proliferation and invasion of ovarian cancer cells, and the expression level of a germ cell specific marker DEAD (Asp-Glu-Ala-Asp)-box helicase 4 (DDX4), which is overexpressed in ovarian cancer, was downregulated by active vitamin D treatment. Knockdown of DDX4 by siRNA could also suppress the invasive ability of ovarian cancer cells. Therefore, DDX4 may be considered as a diagnostic marker of ovarian cancer, and vitamin D may be a candidate drug for ovarian cancer therapy. That DDX4 is essential for the regulation of germ cell proliferation and differentiation across all three extant mammalian groups-eutherians, marsupials, and monotremes.

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