

BACKGROUND

DDX4 is a member of DEAD box proteins, which are putative RNA helicases and characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD). They are implicated in a number of cellular processes involving alteration of RNA secondary structure such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly.¹ Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX4 is a homolog of VASA proteins in *Drosophila* and several other species.² It is specifically expressed in the germ cell lineage in both sexes and functions in germ cell development. DDX4 is a highly sensitive and specific marker for germ cells.³ Multiple transcript variants encoding different isoforms have been found for DDX4 gene.

References:

1. Abdelhaleem, M: Clin. Biochem. 38:499-503,2005
2. Noce, T. et al: Cell Struct. Funct. 26:131-6, 2001
3. Xu, H. et al: Dev. Dyn. 233:872-82, 2005

TECHNICAL INFORMATION

Source:

DDX4 antibody is a mouse monoclonal antibody raised against purified recombinant human DDX4 fragment-hIgGFc fusion expressed in HEK293 cells.

Specificity and Sensitivity:

This antibody detects endogenous DDX4 proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 30% glycerol

Storage:

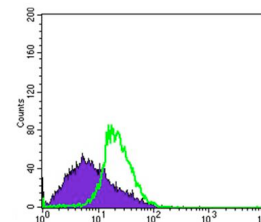
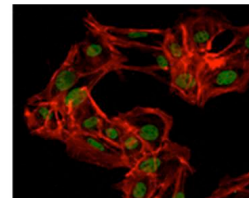
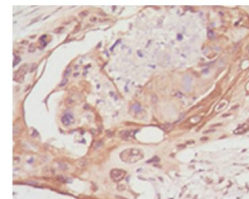
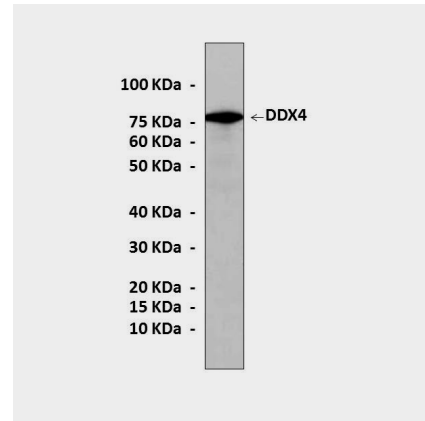
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	1:200
ICC	1:200
FACS	1:200

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Top: Western Blot detection of DDX4 proteins in HEK293 cell lysate using DDX4 Antibody. **Middle, upper:** This antibody stains paraffin-embedded human lung cancer tissue in immunohistochemical analysis. **Middle, lower:** It also stains MSCS cells in confocal immunofluorescent testing (DDX4 antibody: Green; Actin filament: Red). **Bottom:** This antibody detects DDX4 proteins specifically in MSCS cells (Green) vs. normal mouse IgG control (Purple) by FACS assay.

