

CPTC-MEN1-1 (CAB080226)

Uniprot ID: [O00255](#)

Protein name: MEN1_HUMAN

Full name: Menin

Tissue specificity: Ubiquitous.

Function: Essential component of a MLL/SET1 histone methyltransferase (HMT) complex, a complex that specifically methylates 'Lys-4' of histone H3 (H3K4). Functions as a transcriptional regulator. Binds to the TERT promoter and represses telomerase expression. Plays a role in TGFB1-mediated inhibition of cell-proliferation, possibly regulating SMAD3 transcriptional activity. Represses JUND-mediated transcriptional activation on AP1 sites, as well as that mediated by NFkB subunit RELA. Positively regulates HOXC8 and HOXC6 gene expression. May be involved in normal hematopoiesis through the activation of HOXA9 expression (By similarity). May be involved in DNA repair.

Subcellular location:

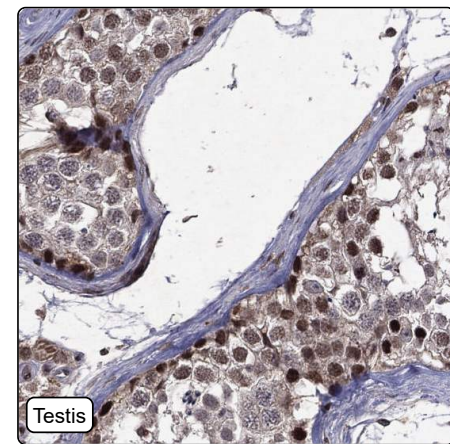
Nucleus (*experimental evidence*)

NOTE: Concentrated in nuclear body-like structures. Relocates to the nuclear matrix upon gamma irradiation.

Protein existence: Experimental evidence at protein level

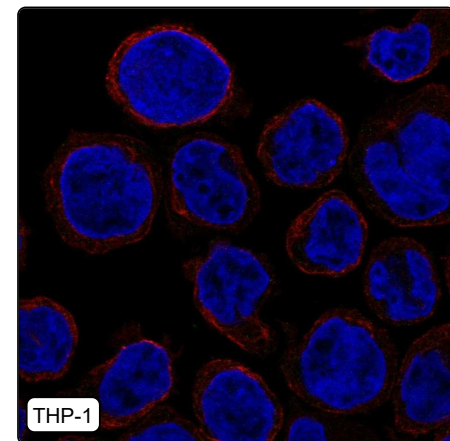
Comment:

Immunohistochemistry



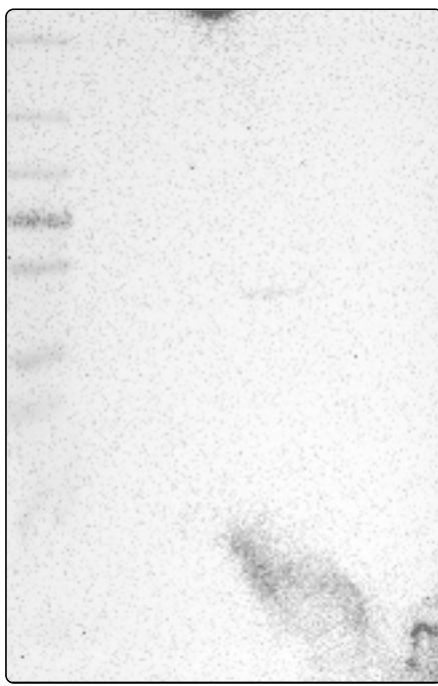
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|--------------------------|---|
| IHC protocol: | HIER pH6, Dilution 1:300 |
| IHC test staining: | Nuclear positivity in testis. |
| Literature conformance: | Partly consistent with extensive gene/protein characterization data |
| Literature significance: | |
| RNA similarity: | Very low consistency between antibody staining and RNA expression data |
| RNA tissue specificity: | Low tissue specificity |
| RNA tissue distribution: | Detected in all |
| IHC Sibling similarity: | Other antibody shows dissimilar IHC staining pattern |
| IHC fail comment: | ANTIBODY FAILED: Improbable histological location,Not consistent with RNA |

Immunofluorescence



| | |
|-------------------------------------|--|
| IF Overlay: | antibody (green), anti-tubulin (red) and DAPI (blue) |
| IF main location: | |
| IF additional location: | |
| IF approved for publication on HPA: | No |
| IF in THP-1: | Negative |
| IF in U-2 OS: | Negative |

Western blot



| | |
|--------------------------------|--|
| WB Size markers (kDa): | 250, 130, 100, 70, 55, 35, 25, 15, 10 |
| WB Lanes: | Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6) |
| WB Target weight (kDa): | 16, 16, 29, 61, 64, 67, 67, 67, 67, 67, 68, 68, 68, 68, 72 |
| WB Validation: | Uncertain (Single band differing more than +/-20% from predicted size in kDa and not supported by experimental and/or bioinformatic data.) |