Datasheet for 100-401-N97

Morc3 Antibody

Overview

Description:	Anti-Morc3 (RABBIT) Antibody - 100-401-N97
Item No.:	100-401-N97
Size:	100 µL
Applications:	WB, IP
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	The Morc (microrchidia) family of proteins are ATPases of the GHKL family. They have been implicated in transcriptional repression of genes and transposons, and higher order organization of DNA within the nucleus. Morc antibodies are ideal for researchers interested in Epigenetics, Cancer, and Cell cycle research.
Synonyms:	rabbit anti-Morc3 Antibody, MORC family CW-type zinc finger protein 3, Protein microrchidia, Morc antibody, Nuclear matrix protein 2, Zinc finger CW-type coiled-coil domain protein 3, ZCWCC3, NXP2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	MORC3
Reactivity:	Human, Mouse
Immunogen Type:	Recombinant Protein
Immunogen:	Morc3 whole rabbit serum was prepared by repeated immunizations with a human Morc3 recombinant protein.

Purity/Specificity:	Morc3 antibody was prepared from monospecific antiserum by delipidation and defibrination. The antibody is specific for human Morc3 in expressed cell lysates. Cross reactivity is seen in mouse Morc3. Cross reactivity to other Morc proteins has not been determined.
Relevant Links:	• UniProtKB - Q14149 • NCBI - NP_056173.1 • GeneID - 23515

Application Details

Tested Applications:	WB
Suggested Applications:	IP (Based on references)
Application Note:	Anti-Morc3 Antibody is tested for use in Western Blot and suitable for ChIP and IF. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 107.1 kDa in size corresponding Morc3 by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000-1:50,000
WB:	1:1000-1:5000

Formulation

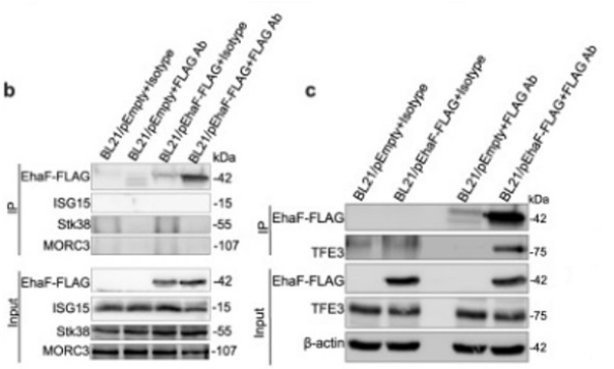
Physical State:	Liquid (sterile filtered)
Concentration:	70 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

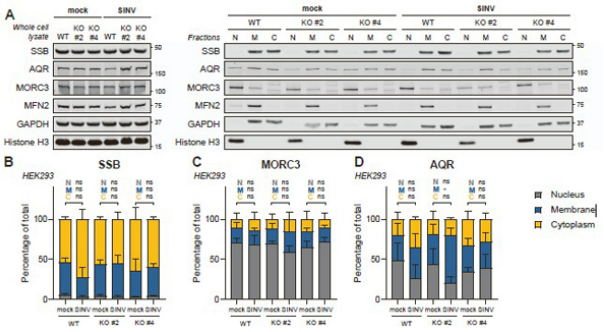
Images



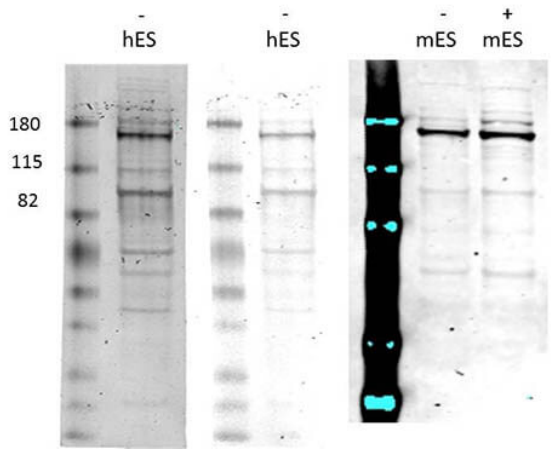
Western Blot
(b-c.) Immunoblot for indicated proteins in the elute from immunoprecipitation (IP) with isotype control antibody (Isotype)- or FLAG antibody (FLAG Ab) or in the lysates (Input) from BMDMs infected with IPTG-treated BL21/pEmpty or BL21/pEhaF at 1.5 h of infection.

To verify if EhaF interacts with these candidate proteins, we probed the EhaF-FLAG immunoprecipitates with antibodies against each of these proteins individually. Stk38, ISG15, and MORC3 were not detected by immunoblotting in the EhaF-FLAG immunoprecipitate (Fig. 5b). In contrast, TFE3 was detectable in the EhaF-FLAG immunoprecipitate, validating the mass spectrometry data and demonstrating EhaF's interaction with TFE3 (Fig. 5c).

Fig 5. PMID: 37041208.



Western Blot
(A) The expression of SSB, AQR and MORC3 in whole cell lysate (left) or different subcellular compartments (right). Cell lysates of uninfected or SINV-infected HEK293 WT or vtRNA1 KO cells (clone 2 and 4) were fractionated into a nuclear (N), membrane (M) or cytoplasmic (C) fraction and analyzed by immunoblotting. of uninfected or SINV-infected HEK293 WT or vtRNA1 KO cells (clone 2 and 4). GAPDH, mitofusin 2 (MFN2), and histone H3 are used as markers for the cytoplasmic/membrane, membrane, and nuclear fraction, respectively. One representative experiment is shown (n=3).
(B-D) Quantification of SSB, MORC3 and AQR band intensities in (A). Intensity of each band expressed as a percentage of the total intensity of the three fractions within each cell line and experimental condition (n=3); p values for statistical tests between every fraction are shown preceding with 'N' (nucleus), 'M' (membrane), or 'C' (cytoplasm). Supplemental Figure 5, to Figure 4. PMID: 40512618



Western Blot
Western Blot of Rabbit anti-Morc3 antibody. Lane 1: Human embryonic stem cell. Lane 2: Human embryonic stem cell. Lane 3: C-Flag Mouse embryonic stem cell. Lane 4: C-Flag Mouse embryonic stem cell doxycycline induced. Load: 35 µg per lane. Primary antibody: hMorc3 antibody at 1:1000-1:5000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 107kDa/ ~170kDa. Other band(s): sumoylated Morc run higher.

References

- Stok JE et al. Vault RNAs aid RNA virus infection by facilitating cytoplasmic localization of hnRNP C and ELAVL1. *Cell Rep.* (2025)
- Ta A et el. A bacterial autotransporter impairs innate immune responses by targeting the transcription factor TFE3. *Nat Commun.* (2023)
- Kojima-Kita K et al. MORC3, a novel MIWI2 association partner, as an epigenetic regulator of piRNA dependent transposon silencing in male germ cells. *Sci Rep.* (2021)
- Li et al. Mouse MORC3 is a GHKL ATPase that localizes to H3K4me3 marked chromatin. *Proc. Natl. Acad. Sci. U.S.A* (2016)

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