

# Anti-Matrin 3 Antibody [JU93-43]

ET7106-95



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IF-Tissue, IHC-P, FC
<b>Molecular Wt:</b>	95 kDa
<b>Clone number:</b>	JU93-43

**Description:** Matrin-3 is a nuclear matrix protein containing one matrin-type zinc finger and two RRM (RNA recognition motif) domains. Matrin-3 plays a role in transcription and may interact with other nuclear matrix proteins to form the internal fibrogranular network. In association with the PSF-p54/NRB heteromer, Matrin-3 may play a role in the nuclear retention of defective RNAs. As the main substrate for PKA-mediated phosphorylation, Matrin-3 may serve as a rapid way of transferring information from synapses containing NMDA receptors to neuronal nuclei under physiological conditions. Also, the phosphorylation of Matrin-3 may contribute to neuronal death under pathological conditions. It is likely that Matrin-3 activity is regulated by calcium dependent interaction with CaM I and also by caspase induced cleavage.

**Immunogen:** Synthetic peptide within Human Matrin 3 aa 749-798 / 847.

**Positive control:** Hela cell lysate, Daudi cell lysate, Hela, LOVO, SH-SY5Y, rat brain tissue, human tonsil tissue, human lung carcinoma tissue, human liver tissue, mouse testis tissue.

**Subcellular location:** Nucleus.

**Database links:** SwissProt: P43243 Human | Q8K310 Mouse | P43244 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000-1:2,000
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:50-1:200
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images

**Fig1:** Western blot analysis of Matrin 3 on different lysates with Rabbit anti-Matrin 3 antibody (ET7106-95) at 1/500 dilution.

Lane 1: Hela cell lysate

Lane 2: Daudi cell lysate

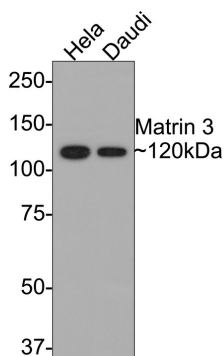
Lysates/proteins at 10 µg/Lane.

Predicted band size: 95 kDa

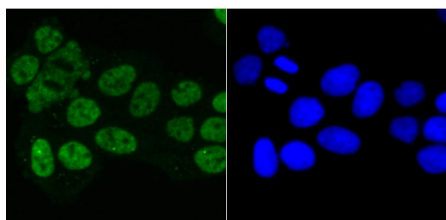
Observed band size: 120 kDa

Exposure time: 2 minutes;

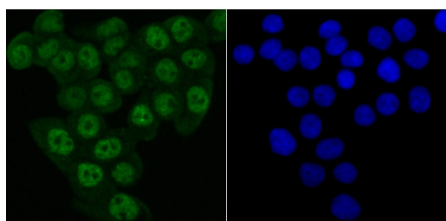
8% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET7106-95) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.



**Fig2:** ICC staining of Matrin 3 in Hela cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET7106-95, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).



**Fig3:** ICC staining of Matrin 3 in LOVO cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET7106-95, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

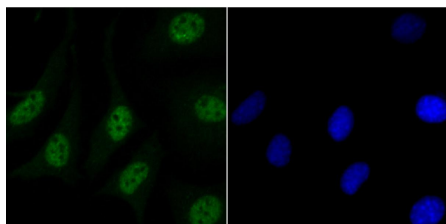
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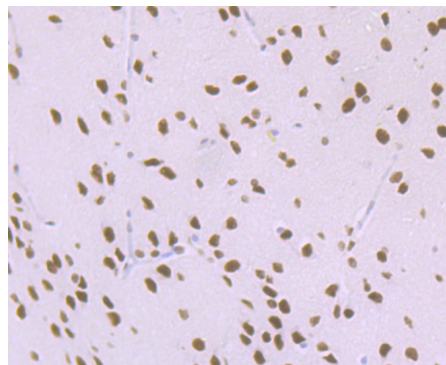
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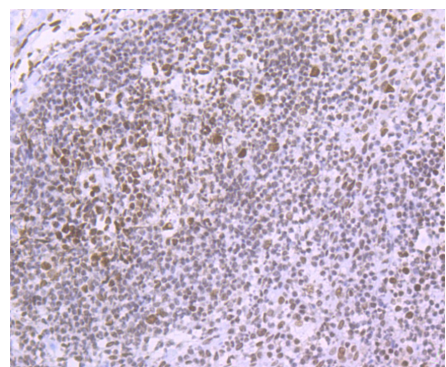
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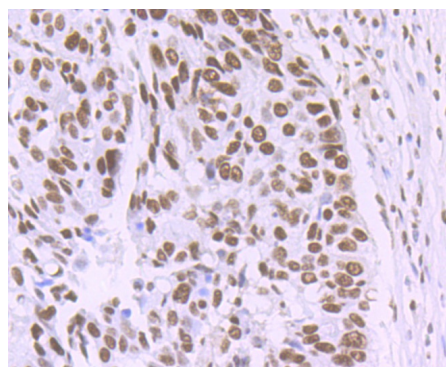
**Fig4:** ICC staining of Matrin 3 in SH-SY5Y cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET7106-95, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).



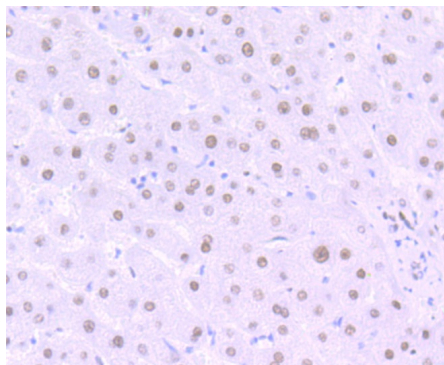
**Fig5:** Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Matrin 3 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7106-95, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



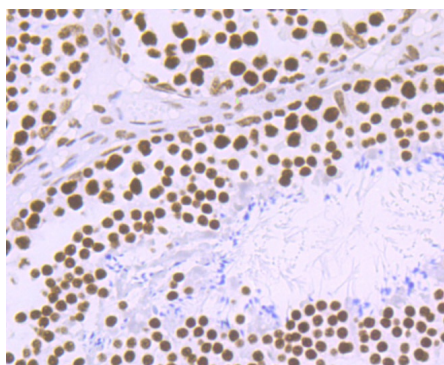
**Fig6:** Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Matrin 3 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7106-95, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



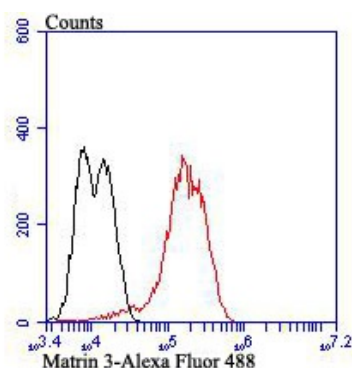
**Fig7:** Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using anti-Matrin 3 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7106-95, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig8:** Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-Matrin 3 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7106-95, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig9:** Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-Matrin 3 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7106-95, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig10:** Flow cytometric analysis of Matrin 3 was done on LOVO cells. The cells were fixed, permeabilized and stained with the primary antibody (ET7106-95, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Zhang Z et al. The fate of dsRNA in the nucleus: a p54(nrb)-containing complex mediates the nuclear retention of promiscuously A-to-I edited RNAs. *Cell* 106:465-475 (2001).
2. Treiber T et al. A Compendium of RNA-Binding Proteins that Regulate MicroRNA Biogenesis. *Mol Cell* 66:270-284 (2017).

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