

NUP153 (E3I6Z) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IF-IC	H Mk	Endogenous	180	Rabbit IgG	#P49790	9972

Product Usage Information**Application**

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

NUP153 (E3I6Z) Rabbit mAb recognizes endogenous levels of total NUP153 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro428 of human NUP153 protein.

Background

The nuclear pore complex (NPC) is a multi-subunit protein channel that spans the nuclear envelope and is responsible for the nucleocytoplasmic trafficking of RNA, proteins, and ribonucleoproteins (1,2). Nucleoporin 153 kDa (NUP153) protein functions as a scaffolding element that recruits other proteins to form the "nuclear basket" on the nuclear side of the pore complex. NUP153 is essential for normal nucleocytoplasmic transport of proteins and mRNAs and is critical for the quality control and retention of unspliced mRNAs in the nucleus (1,2). NUP153 is a potential DNA-binding subunit of the NPC and is important for proper regulation of embryonic stem cell pluripotency and differentiation (1,3). Depletion of NUP153 leads to derepression of developmental genes and induction of early differentiation. NUP153 binds to Nucleoporin-Associated Regions (NARs) that are found near the transcriptional start sites of developmental genes and mediates recruitment of polycomb repressor complex 1 (PRC1) to repress transcription in embryonic stem cells (3).

Background References

1. Raices, M. and D'Angelo, M.A. (2017) *Curr Opin Cell Biol* 46, 26-32.
2. Xu, S. and Powers, M.A. (2009) *Semin Cell Dev Biol* 20, 620-30.
3. Jacinto, F.V. et al. (2015) *Genes Dev* 29, 1224-38.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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