

Anti-Nup153 antibody, rat monoclonal (R4C8)

70-315 200 µg

Shipping and Storage: Shipped at 4°C or -20°C and stored at -20°C.

Immunogen: Recombinant GST-fused rat Nup153 (610-1191aa)

Form: Purified monoclonal antibody (IgG) 1mg/ml in PBS⁻ with 50% glycerol, filter-sterilized

Isotype: Rat IgG2a κ

Epitope: 610-1191 aa (Zn finger and FG repeats domain)

Reactivity: Reacts with human, mouse, rat and monkey Nup153 proteins. Other species have not been tested.

Applications

1. Western blotting (160 kDa single band in Hela cell extract)
2. Immunocytochemistry
3. ELISA

Other applications have not been tested.

Additional comments: When injected into the nucleus, R4C8 accumulates into the nuclear pores of Hela cells. R4C8 works in immuno-cytochemistry very well (Fig. 2 & 3).

Background: The nuclear pore complex (NPC) regulates cargo transport between the cytoplasm and the nucleus. **Nup (Nucleoporin) 153** is a large (153kDa) O-linked glycoprotein which is a component of the basket structure located on the nucleoplasmic face of NPC. Nup153 plays a critical role in nuclear export of RNA and proteins. The antibody was purified from the serum-free cultured medium of the hybridoma under mild conditions by propriety chromatography processes.

Data Link UniProtKB/Swiss-Prot [P49790](#) (NU153_HUMAN)

UniProtKB[P49791](#)(NU153_RAT)

References: This antibody has been used in the following publications.

Iino H et al. Live imaging system for visualizing nuclear pore complex (NPC) formation during interphase in mammalian cells. *Genes to Cells* Volume 15, Issue 6. **IF (hamster)**

Maeshima K et al. Nuclear pore formation but not nuclear growth is governed by cyclin-dependent kinases (Cdks) during interphase. *Nature Structural & Molecular Biology* volume 17, pages1065–1071 (2010). **IF, WB (human)**

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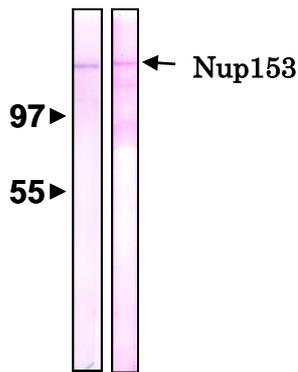


Fig.1 Detection of Nup153 by Western blotting with antibody R4C8.

Sample is the nuclear membrane fraction of HeLa cells (Left) and NIH3T3 cells (Right).

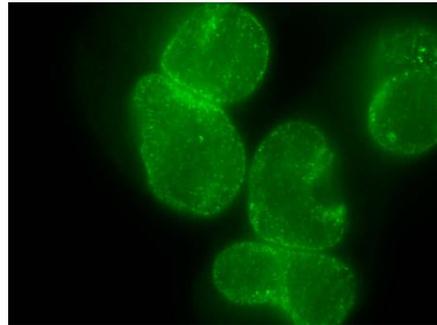


Fig.2 Immunofluorescent staining of HeLa cells with antibody R4C8.

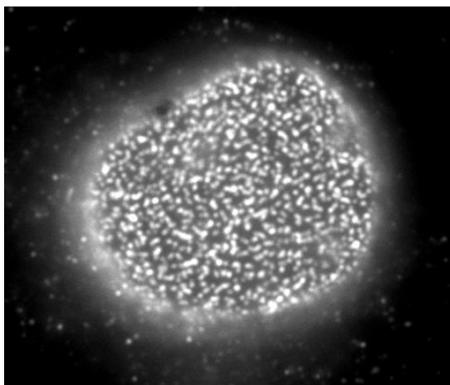


Fig.3 Immunofluorescent staining of rat neuron with antibody R4C8.

The dots are Nup153.

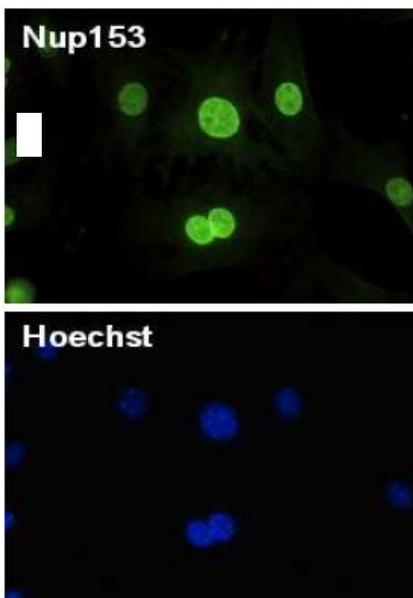


Fig 4.Immunofluorescent staining of MEF cells from E14.5 mouse embryo with antibody R4C8.

Cells fixed with 10% formalin at room temperature for 10 min and permeabilized with ice-cold methanol on ice for 10 min. Cells were blocked with 3% BSA/PBS at room temperature for 30 min and incubated with Nup153 (1:200) antibodies at 4°C overnight, and treated with Alexa-488-cojugated rat IgG (1:1000) at room temperature for 1hr. Chromosomal DNA was detected by staining with 3.3 μM Hoechst 33342. Nuclear peripheries were stained with anti-Nup153 antibody R4C8.