

## 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<sup>-</sup> 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)

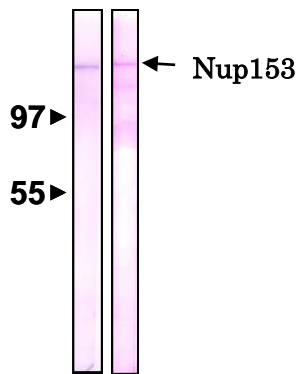
UniProtKB[P49791](#)(NU153\_RAT)

**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)**

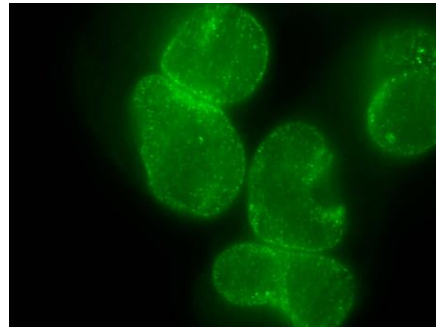
Maeshima K et al. Nuclear pore formation but not nuclear growth is governed by cyclin-dependent kinases (Cdks) during interphase. *Nature Structural & Molecular Biology* volume 17, pages1065–1071 (2010). **IF, WB (human)**

(to be continued to next page)

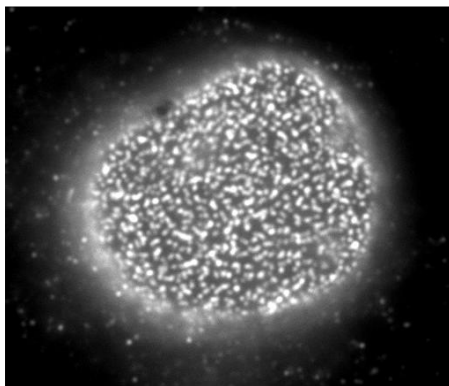


**Fig.1** Detection of Nup153 by Western blotting with antibody R4C8.

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

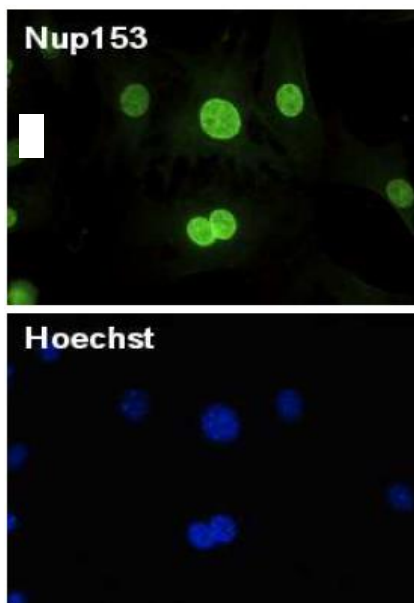


**Fig.2** Immunofluorescent staining of HeLa cells with antibody R4C8.



**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.