Anti-Nup62 antibody, rat monoclonal (2A)

70-305　　200 μg

The nuclear pore complex (NPC) regulates cargo transport between the cytoplasm and the nucleus. **Nucleoporins** are the main components of the NPC in eukaryotic cells. **Nup (Nucleoporin) 62** (522 aa, 53 kDa) is a member of the FG-repeat containing nucleoporins and is localized to the NPC central plug. **Nup62** associates with the importin alpha/beta complex which is involved in the import of proteins containing nuclear localization signals. Predicted to contain about 10 N-acetylglucosamine side chain .

Applications

1. Western blotting (1/500 ~1/2,000 dilution)
2. Immunoprecipitation (assay dependent)
3. Immunofluorescece / Immunocytochemistry (1/400)
4. ELISA (assay dependent)
5. When this antibody was micro-injected into the cytoplasm of the HeLa cells, it accumulates into the nuclear pores as examined by immunofluorescence staining..

Immunogen: Recombinant human Nup62 (aa 1-300) (GST-Nup62-His)

Epitope: aa 1-179 (FG-repeat region)

Isotype: Rat IgG1 kappa

Product: Purified from serum-free culture medium of the hybridoma by proprietary chromatography under mild conditions.

Form: 1mg/ml in PBS, 50% glycerol, filter-sterilized.
Carrier protein and sodium azide.free.

Specificity: Specific to human (HeLa cells) and simian (Cos cells). The antibody did not react with mouse.

Storage: Shipped at 4℃, and upon arrival, spin-down and store at -20℃

Data Link: UniProtKB/Swiss-Prot P37198 (NUP62_HUMAN)

References: **This antibody was described in Ref.1 and used in Ref.1 and 2.**

1. Fukuhara T *et al* "Functional analysis of nuclear pore complex protein Nup62/p62 using monoclonal antibodies." *Hybridoma* **25**: 51-59 (2006) PMID 16704304
2. Maeshima K *et al* "Cell-cycle-dependent dynamics of nuclear pores: pore-free islands and lamins." *J Cell Sci* **119**: 4442-4451 (2006) PMID 17074834

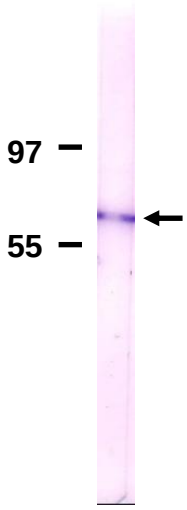

Fig.1 Detection of Nup62 in membrane fraction of HeLa cells by Western blotting with the antibody 2A.

Sample is the nuclear membrane fraction of HeLa cells. The antibody was used at 1/500 dilution. As a second antibody, alkaline phosphatase conjugated anti-rat IgG antibody

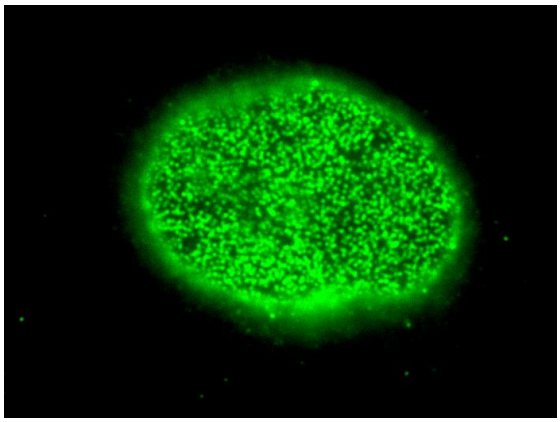

Fig.2 Immunofluorescent staining of HeLa cells with the antibody 2A, focused on nuclear surface.

HeLa cells were fixed with 3.7% formaldehyde and permeabilized with 0.5% Triton X-100. The anti-Nup62 antibody (2A) was used at 1/400 and as a second antibody, Alexa 488 conjugated goat anti-rat IgG antibody was used at 1/500 dilution.

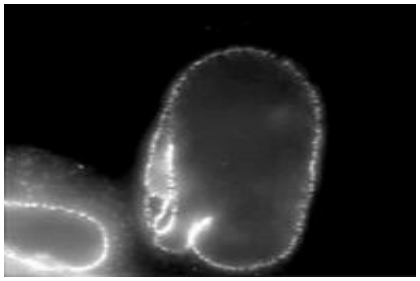

Fig.3. Immunofluorescent staining of HeLa cells with the antibody 2A, focused on nuclear rim.

Methods are as described in Fig.2.