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Product datasheet for AP20131PU-N

Nuclear Pore Complex Marker (pan) Mouse Monoclonal Antibody [Clone ID: 39C7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	39C7
Applications:	IF
Recommended Dilution:	**Immunofluorescence:** 1/100-1/500 (Yeast cells) and 1/50-1/100 (Mammalian cells). ***Note:*** This antibody does not work well on Western blots so we are currently unsure of the exact identity of the protein to which it binds.
Reactivity:	Human, Mouse, Rat, Yeast
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Yeast nuclear preparations and screening the resullting hybridomas by Immunofluorescence on Yeast cells.
Specificity:	This Monoclonal antibody is a Panspecific Nuclear Pore Complex Marker. Clone 39C7 was one of a series of clones which strongly and specifically labelled the Nuclear Pore Complex. When this antibody was tested on cells from other species, including Rat, Mouse and Human cells, it has invariably strongly stained nuclear pore complexes, so it appears to be an excellent and panspecific marker for these important structures.
Formulation:	State: Purified State: Liquid Sterile-filtered Cell Culture fluid from an Integra CL-350 bio-chamber Preservative: 10 mM Sodium Azide
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Unconjugated

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C to -70°C for longer. Avoid repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

Background: The Nuclear pore complex (NPC) has a molecular mass of ~125 KDa in vertebrates and contains about 50 or more different proteins . The NPC spans the dual membrane of the the nuclear envelope (NE) and acts as a gateway for macromolecular traffic between the cytoplasm and the nucleus. The basic framework of the NPC consists of a central core with a ring-spoke structure exhibiting 8 fold radial symmetry. From this central ring 50 to 100 nm fibrils extend into the nucleoplasm and the cytoplasm. The NPC is in turn anchored in the NE by the nuclear lamina, a meshwork of lamins and lamin-associated proteins that forms a 15 nm thick fibrous structure between the inner nuclear membrane and peripheral chromatin. A number of proteins called nucleoporins have been localised to discrete regions of the NPC and are often used as markers for this compartment, e.g. Nup153. Approximately half of the nucleoporins (or Nups) contain a phenyalanine-glycine repeat motif (FG repeat), which may be diagnostic for proteins playing a role in nuclear transport.

Synonyms: Nuclear Pore Complex Proteins, NUP107, NUP84, Nup133, Nup62, NPC

Product images:

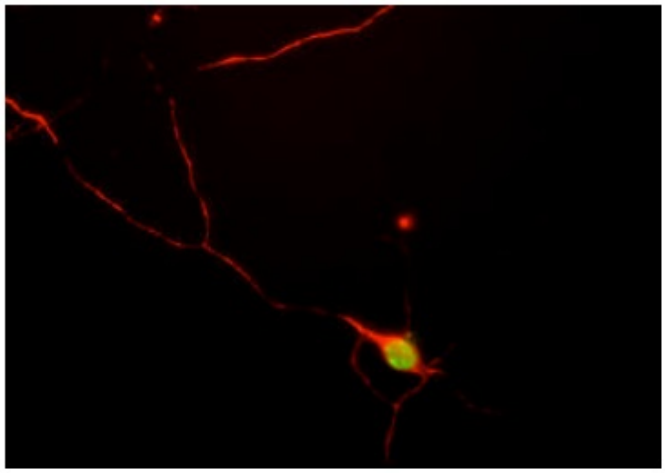

Figure 2. E18 hippocampal neurons grown for four days and stained in the red channel with our polyclonal antibody to the neurofilament subunit NF-M which forms short filaments in these cells at this stage. The cells were also stained in green with 39C7.

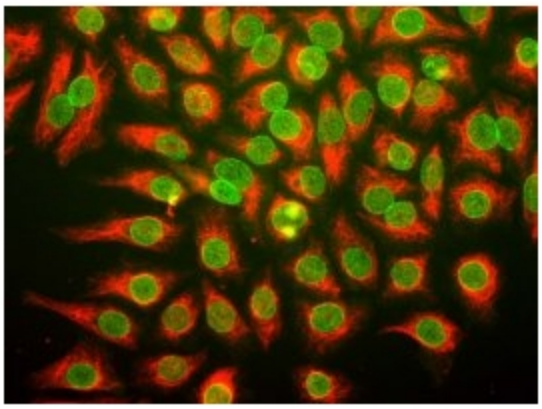

Figure 1. HeLa cells were stained with anti-Nuclear Pore Complex antibody 39C7 (Cat.-No AP20131PU-N) (Green), and Chicken anti-Vimentin (Cat.-No [AP08764SU-N]) (Red).