**BACKGROUND**

Protein transport across the nucleus is a selective, multi-step process involving several cytoplasmic factors. Proteins must be recognized as import substrates, dock at the nuclear pore complex, and translocate across the nuclear envelope in an ATP-dependent fashion. Two cytosolic factors centrally involved in the recognition and docking process are the karyopherin α and karyopherin β proteins. The karyopherin holoenzyme is a heterodimer of α and β subunits. Karyopherin α functions in the recognition and targeting of substrates destined for nuclear import, while karyopherin β serves as an adaptor, tethering the karyopherin α substrate complex to docking proteins (termed nucleoporins) on the nuclear envelope. p62 glycoprotein is one such nucleoporin, and is not only involved in the nuclear import of proteins, but also the export of nascent mRNA strands. An additional protein, NTf2 (nuclear transport factor 2), interacts with nucleoporin p62 as a homodimer and may be an obligate component of functional p62.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: NUP62 (human) mapping to 19q13.33; Nu p62 (mouse) mapping to 7 B4.

**SOURCE**

nucleoporin p62 (E-4) is a mouse monoclonal antibody raised against amino acids 401-522 of nucleoporin p62 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

nucleoporin p62 (E-4) is recommended for detection of nucleoporin p62 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of nucleoporin p62: 62 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, HeLa whole cell lysate: sc-2200 or nucleoporin p62 (m): 293T Lysate: sc-127246.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGk/BP-HRP: sc-516102 or m-IgGk BP-HRP (Cruz Marker); sc-516102-CM [dilution range: 1:1000-1:10000], Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGk BP-ATC: sc-516140 or m-IgGk BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.