

nucleoporin p62 (E-4): sc-48389

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.

CHROMOSOMAL LOCATION

Genetic locus: NUP62 (human) mapping to 19q13.33; Nup62 (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 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

nucleoporin p62 (E-4) is available conjugated to agarose (sc-48389 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48389 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48389 PE), fluorescein (sc-48389 FITC), Alexa Fluor[®] 488 (sc-48389 AF488), Alexa Fluor[®] 546 (sc-48389 AF546), Alexa Fluor[®] 594 (sc-48389 AF594) or Alexa Fluor[®] 647 (sc-48389 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-48389 AF680) or Alexa Fluor[®] 790 (sc-48389 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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 μ g per 100-500 μ g 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).

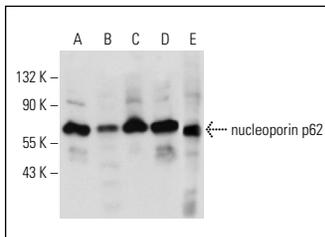
Suitable for use as control antibody for nucleoporin p62 siRNA (h): sc-36107, nucleoporin p62 siRNA (m): sc-36108, nucleoporin p62 shRNA Plasmid (h): sc-36107-SH, nucleoporin p62 shRNA Plasmid (m): sc-36108-SH, nucleoporin p62 shRNA (h) Lentiviral Particles: sc-36107-V and nucleoporin p62 shRNA (m) Lentiviral Particles: sc-36108-V.

Molecular Weight of nucleoporin p62: 62 kDa.

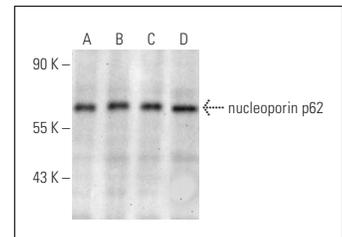
STORAGE

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

DATA



nucleoporin p62 (E-4): sc-48389. Western blot analysis of nucleoporin p62 expression in BJAB (A), NIH/3T3 (B), HeLa (C) and Jurkat (D) whole cell lysates and KNRK (E) nuclear extract.



nucleoporin p62 (E-4) HRP: sc-48389 HRP. Direct western blot analysis of nucleoporin p62 expression in PC-3 (A), K-562 (B), BJAB (C) and Jurkat (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Hernández-Breijo, B., et al. 2011. Preclinical evaluation of azathioprine plus buthionine sulfoximine in the treatment of human hepatocarcinoma and colon carcinoma. *World J. Gastroenterol.* 17: 3899-3911.
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- Akbar, H., et al. 2022. Acetylation of Nup62 by TIP60 ensures accurate chromosome segregation in mitosis. *J. Mol. Cell Biol.* 14: mjac056.
- Medras, Z.J.H., et al. 2023. Arctigenin improves neuropathy via ameliorating apoptosis and modulating autophagy in streptozotocin-induced diabetic mice. *CNS Neurosci. Ther.* 29: 3068-3080.
- Awad, A.M., et al. 2024. Ameliorative effect of montelukast against STZ induced diabetic nephropathy: targeting HMGB1, TLR4, NF- κ B, NLRP3 inflammasome, and autophagy pathways. *Inflammopharmacology* 32: 495-508.

RESEARCH USE

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