

B23 (C-19)-R: sc-6013-R

BACKGROUND

The transport of proteins across the nuclear envelope is a selective, multistep 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. Several cytosolic and nuclear proteins that are central to this process have been identified. For example, two cytosolic factors critically 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. The nuclear protein B23 (also referred to as nucleophosmin) is involved in ribosomal assembly and rRNA transport. B23 is an abundant protein that is highly phosphorylated by Cdc2 kinase during mitosis.

CHROMOSOMAL LOCATION

Genetic locus: NPM1 (human) mapping to 5q35.1; Npm1 (mouse) mapping to 11 A4.

SOURCE

B23 (C-19)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of B23 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6013 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

B23 (C-19)-R is recommended for detection of B23 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

B23 (C-19)-R is also recommended for detection of B23 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for B23 siRNA (h): sc-29771, B23 siRNA (m): sc-29772, B23 shRNA Plasmid (h): sc-29771-SH, B23 shRNA Plasmid (m): sc-29772-SH, B23 shRNA (h) Lentiviral Particles: sc-29771-V and B23 shRNA (m) Lentiviral Particles: sc-29772-V.

Molecular Weight of B23: 40 kDa.

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.

SELECT PRODUCT CITATIONS

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- Llanos, S. and Serrano, M. 2010. Depletion of ribosomal protein L37 occurs in response to DNA damage and activates p53 through the L11/MDM2 pathway. *Cell Cycle* 9: 4005-4012.



Try **B23 (E-3): sc-271737** or **B23 (FC-8791): sc-32256**, our highly recommended monoclonal alternatives to B23 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **B23 (E-3): sc-271737**.