

CRM1 (H-7): sc-74455

BACKGROUND

Protein transport across the nucleus 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. Two cytosolic factors centrally involved in the recognition and docking process are the karyopherin α 1 and karyopherin β 1 subunits. p62 glycoprotein is a nucleoporin that is not only involved in the nuclear import of proteins, but also the export of nascent mRNA strands. NTF2 (nuclear transport factor 2) interacts with nucleoporin p62 as a homodimer composed of two monomers, and may be an obligate component of functional p62. CRM1 has been shown to be an export receptor for leucine-rich proteins that contain the nuclear export signal (NES).

CHROMOSOMAL LOCATION

Genetic locus: XPO1 (human) mapping to 2p15; Xpo1 (mouse) mapping to 11 A3.2.

SOURCE

CRM1 (H-7) is a mouse monoclonal antibody raised against amino acids 772-1071 of CRM1 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.

CRM1 (H-7) is available conjugated to agarose (sc-74455 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74455 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74455 PE), fluorescein (sc-74455 FITC), Alexa Fluor[®] 488 (sc-74455 AF488), Alexa Fluor[®] 546 (sc-74455 AF546), Alexa Fluor[®] 594 (sc-74455 AF594) or Alexa Fluor[®] 647 (sc-74455 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-74455 AF680) or Alexa Fluor[®] 790 (sc-74455 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CRM1 (H-7) is recommended for detection of CRM1 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), 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).

Suitable for use as control antibody for CRM1 siRNA (h): sc-35116, CRM1 siRNA (m): sc-35117, CRM1 shRNA Plasmid (h): sc-35116-SH, CRM1 shRNA Plasmid (m): sc-35117-SH, CRM1 shRNA (h) Lentiviral Particles: sc-35116-V and CRM1 shRNA (m) Lentiviral Particles: sc-35117-V.

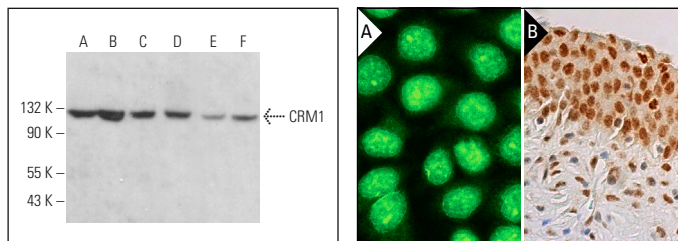
Molecular Weight of CRM1: 115 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Neuro-2A whole cell lysate: sc-364185 or EOC 20 whole cell lysate: sc-364187.

STORAGE

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

DATA



CRM1 (H-7): sc-74455. Western blot analysis of CRM1 expression in NIH/3T3 (A), Neuro-2A (B), EOC 20 (C), C6 (D), Caki-1 (E) and HCT-116 (F) whole cell lysates.

CRM1 (H-7): sc-74455. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

- Niu, M., et al. 2015. Novel reversible selective inhibitor of nuclear export shows that CRM1 is a target in colorectal cancer cells. *Cancer Biol. Ther.* 16: 1110-1118.
- Liu, X., et al. 2015. Novel reversible selective inhibitor of CRM1 for targeted therapy in ovarian cancer. *J. Ovarian Res.* 8: 35.
- Song, Y., et al. 2017. E3 ligase FBXW7 is critical for RIG-I stabilization during antiviral responses. *Nat. Commun.* 8: 14654.
- Gilistro, E., et al. 2017. Importin- β and CRM1 control a RANBP2 spatiotemporal switch essential for mitotic kinetochore function. *J. Cell Sci.* 130: 2564-2578.
- Deng, F. and Miller, J. 2019. A review on protein markers of exosome from different bio-resources and the antibodies used for characterization. *J. Histotechnol.* 42: 226-239.
- Zhu, Q., et al. 2020. TRIM24 facilitates antiviral immunity through mediating K63-linked TRAF3 ubiquitination. *J. Exp. Med.* 217: e20192083.
- Mazaira, G.I., et al. 2020. Nucleocytoplasmic shuttling of the glucocorticoid receptor is influenced by tetratricopeptide repeat-containing proteins. *J. Cell Sci.* 133: jcs238873.

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.