



MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. 70-325EX

Anti-Importin α 3 / KPNA4/Qip1 antibody (3D10)

BACKGROUND

Importin α proteins play a pivotal role in the import of proteins from the cytoplasm to the nucleus. Importin α proteins shuttle between nucleus and cytoplasm, bind nuclear localization signal (NLS)-bearing proteins, and mediate the protein import into the nucleus with importin β . Several importin α isotypes have been identified, each exhibiting differential recognition and nuclear transport, probably via preferential binding to a particular NLS. The **importin α 3 (KPNA4, Qip1)** is a member of the importin α family of proteins belonging to the Qip1 subfamily.

The antibody was purified from the serum-free cultured medium of the hybridoma under mild conditions by proprietary chromatography processes.

Product type	Primary antibodies
Host	Rat
Form	Purified monoclonal antibody (IgG) 1mg/ml in PBS, 50% glycerol, filter-sterilized
Volume	200 μ g
Concentration	
Epitope	Not determined
Antigen	A region of NS5a protein (the nucleotide sequence is shown in ref.4) of HCV genotype 1b expressed in <i>E.coli</i>
Clone	3D10
Isotype	Rat IgG2a, kappa

Application notes	1. Western blotting (250~500 fold dilution) 2. ELISA This antibody doesn't work for immunostaining and immunoprecipitation. Other applications have not been tested. Optimal dilutions/concentrations should be determined by the end user.
Data Link	Swiss-Prot D3DNM2
Reactivity	Reactive with human, simian, mouse, rat, hamster, canine and bovine importin α 3. This antibody doesn't recognize other importin α family including α 4.
Storage	-20°C(long period, -70°C)
References	1. Yoneda Y "Nucleocytoplasmic protein traffic and its significance to cell function." Review. <i>Genes Cells</i> 5: 777-787 (2000) PMID: 11029654 2. Miyamoto Y et al "Differential modes of nuclear localization signal (NLS) recognition by three distinct classes of NLS receptors." <i>J Bio Chem</i> 272:26375-26381 (1997) PMID: 9334211 3. Sakaguchi N et al "Generation of a rat monoclonal antibody specific for importin α 3/Qip1." <i>Hybrid Hybridomics</i> 22: 397-400 (2003) PMID: 14683601 4. Yasuhara N et al "Triggering neural differentiation of ES cells by subtype switching of importin- α ." <i>Nat Cell Biol</i> 9:72-79 (2007) PMID: 17159997

This antibody was produced and used in Ref.3 and 4.



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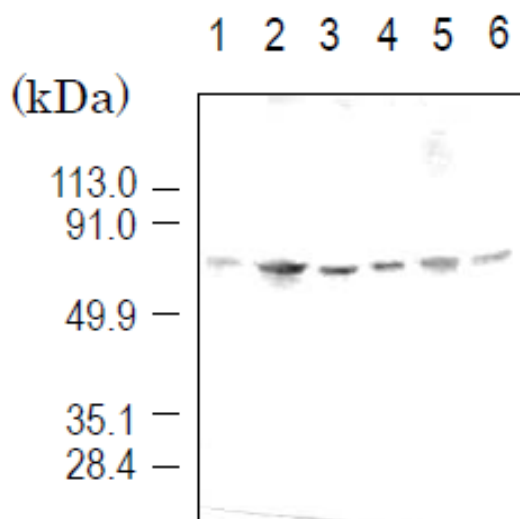


Fig.1

Detection of importin $\alpha 3$ (58 kD) by Western blotting using the antibody 3D10.

Sample is the total cell extract.

lane1: HeLa (human)

lane2: COS7 (simian)

lane3: L929 (mouse)

lane4: NRK (rat)

lane5: BHK (hamster)

lane6: MDBK (bovine)

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