Monoclonal Anti-Importin α1

Prod. Code: I 9658
Clone Name: Clone 1A6, developed in rat
Product Form: Purified rat immunoglobulin
Immunogen: Recombinant mouse importin α1
Isotype: IgG2a
Species Cross Reactivity: human, mouse, canine, chicken

Importin α is a nuclear transport adaptor protein and is classified into three subfamilies: the SRP1-like subfamily (containing the SRP1; Importin α5, α6, and α7), the Rch1-like subfamily (containing Rch1, Pendulin, Importin α1, and α2), and Importin α3/α1p1-like subfamily (containing Importin α3 and α4). Importin α links the import receptor, importin β, with cargo proteins containing a classical nuclear localization signal (NLS). Formation of the Importin β/importin α/cargo complex triggers the binding of importin β to the nuclear pore complex (NPC) and the subsequent import of the entire complex into the nucleus. Inside the nucleus, the cargo protein and importin α are released from the complex upon binding of Ran-GTP to importin β. Importin α is recycled back to the cytoplasm by CAS (cellular apoptosis susceptibility) protein, an importin α specific export receptor.

Applications: Immunoblotting (~60 kDa) and immunocytochemistry

Detection of Importin α1, α3 and α5/7 in HeLa cells.

Total cell extracts from HeLa cells were tested by immunoblotting using three importin-specific rat monoclonals.

Lane 1: Anti-Importin α1 (Prod. Code I 9658)
Lane 2: Anti-Importin α3 (Prod. Code I 9908)
Lane 3: Anti-Importin α5/7 (Prod. Code I 9783)

References

Related Antibodies

Product Name Clone Host Prod. Code
Monoclonal Anti-Importin, α3 3D10 Rat 1 9783
Monoclonal Anti-Importin, α5/7 2D9 Rat 1 9908

Related Proteins

Product Name Prod. Code
Importin α2, human, recombinant I 9656
Importin β1, human, recombinant I 9781

Monoclonal Anti-PINCH1

Prod. Code: P 8996
Clone Name: PINCH-C58, developed in mouse
Product Form: Purified mouse immunoglobulin
Immunogen: Synthetic peptide corresponding to amino acids 281-299 of human PINCH-1
Isotype: IgG1
Species Cross Reactivity: human, mouse, rat, hamster, monkey, bovine and canine

Cell adhesion to extracellular matrix (ECM) is an important process that controls cell morphology, proliferation, migration, differentiation and survival. Transduction of extracellular matrix signals through integrins influences intracellular and extracellular functions, and requires interaction of integrin cytoplasmic domains with cellular proteins. ILK (integrin-linked kinase) interacts with the cytoplasmic domain of β1- and β3-integrins and is implicated in integrin, growth factor and Wnt signaling pathways [1-3]. ILK has three structurally conserved domains, the C-terminal domain contains a protein kinase catalytic site and a binding site for the integrin β1 subunit; the PH-like domain of ILK binds PtdIns(3,4,5)P3 and participates in the regulation of the kinase activity [4]; the N-terminal domain contains four ANK repeats responsible for interaction with the LIM adaptor protein PINCH (particularly interesting new Cys-His protein; a.k.a. LIM and senescent cell antigen-like domains) [5, 6]. The interaction with PINCH proteins (PINCH-1 and 2) is important for localization of the ILK protein to cell matrix contact sites.

Applications: Immunoblotting (~37 kDa), immunoprecipitation and ELISA

References

Related Antibodies

Product Name Clone Host Prod. Code
Monoclonal Anti-Pinch-1 PINCH-N173 Mouse P 9371
Monoclonal Anti-ILK 65 Mouse I 0783
Anti-ILK -- Rabbit I 1907

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