

## Product datasheet for **CF811718**

### **KPNB1 Mouse Monoclonal Antibody [Clone ID: OTI6H3]**

#### **Product data:**

|                                |  |
|--------------------------------|--|
| <b>Product Type:</b>           | Primary Antibodies   |
| <b>Clone Name:</b>             | OTI6H3   |
| <b>Applications:</b>           | IHC, WB  |
| <b>Recommended Dilution:</b>   | WB 1:500~2000, IHC 1:2000  |
| <b>Reactivity:</b>             | Human, Rat, Mouse  |
| <b>Host:</b>                   | Mouse  |
| <b>Isotype:</b>                | IgG1   |
| <b>Clonality:</b>              | Monoclonal   |
| <b>Immunogen:</b>              | Human recombinant protein fragment corresponding to amino acids 1-200 of human KPNB1 (NP_002256) produced in E.coli.   |
| <b>Formulation:</b>            | Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)  |
| <b>Reconstitution Method:</b>  | For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific) |
| <b>Purification:</b>           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)  |
| <b>Conjugation:</b>            | Unconjugated   |
| <b>Storage:</b>                | Store at -20°C as received.  |
| <b>Stability:</b>              | Stable for 12 months from date of receipt.   |
| <b>Predicted Protein Size:</b> | 97 kDa   |
| <b>Gene Name:</b>              | karyopherin subunit beta 1   |
| <b>Database Link:</b>          | <a href="#">NP_002256</a><br><a href="#">Entrez Gene 16211 Mouse</a> <a href="#">Entrez Gene 24917 Rat</a> <a href="#">Entrez Gene 3837 Human</a><br><a href="#">Q14974</a>  |



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**Background:**

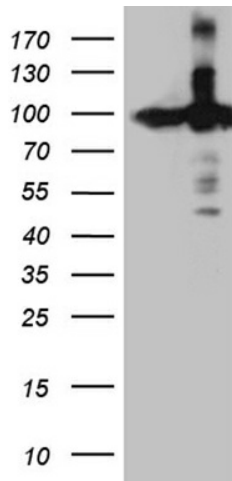
Nucleocytoplasmic transport, a signal- and energy-dependent process, takes place through nuclear pore complexes embedded in the nuclear envelope. The import of proteins containing a nuclear localization signal (NLS) requires the NLS import receptor, a heterodimer of importin alpha and beta subunits also known as karyopherins. Importin alpha binds the NLS-containing cargo in the cytoplasm and importin beta docks the complex at the cytoplasmic side of the nuclear pore complex. In the presence of nucleoside triphosphates and the small GTP binding protein Ran, the complex moves into the nuclear pore complex and the importin subunits dissociate. Importin alpha enters the nucleoplasm with its passenger protein and importin beta remains at the pore. Interactions between importin beta and the FG repeats of nucleoporins are essential in translocation through the pore complex. The protein encoded by this gene is a member of the importin beta family. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2013]

**Synonyms:**

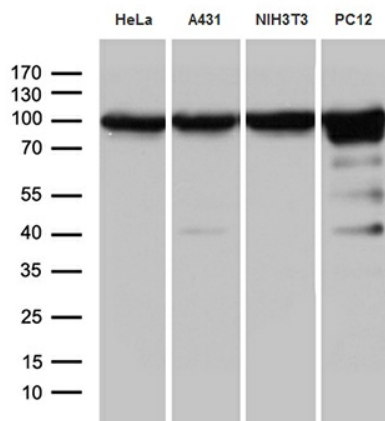
IMB1; Impnb; IPO1; IPOB; NTF97

**Protein Families:**

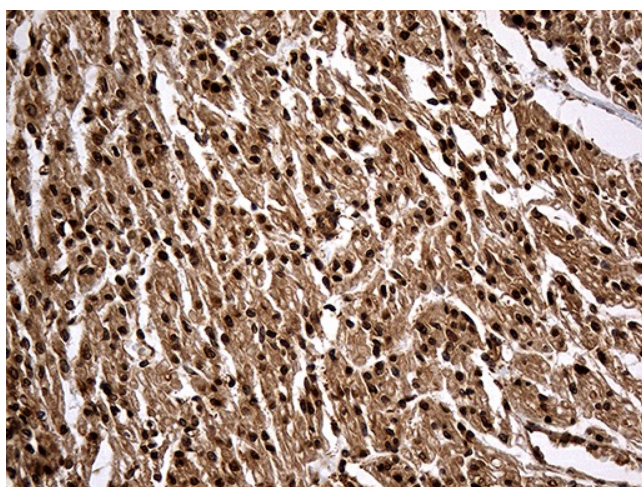
Druggable Genome, Stem cell - Pluripotency

**Product images:**

HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY KPNB1 ([RC200659], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KPNB1 (1:2000). Positive lysates [LY419417] (100ug) and [LC419417] (20ug) can be purchased separately from OriGene.



Western blot analysis of extracts (35ug) from 4 different cell lines by using anti-KPNB1 monoclonal antibody (1:500).



Immunohistochemical staining of paraffin-embedded Human adult heart tissue within the normal limits using anti-KPNB1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.