

Rabbit KPNB1 Polyclonal Antibody | anti-KPNB1 antibody

Anti-KPNB1 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126181	Rabbit	Human, Mouse, Rat	Western Blot, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

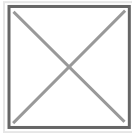
KPNB1; Polyclonal Antibody; Anti-KPNB1 Antibody Picoband; anti-KPNB1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Natural and recombinant Human GDF2
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-KPNB1 antibody	WB (Western Blot), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA
Assay Type	Sandwich
Samples	Bone tissue, cell culture supernatants, serum plasma (heparin, EDTA) and urine
Detection Range	15.6 pg/ml - 1,000 pg/ml
Sensitivity	<10 pg/ml
Intra-assay Precision	Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested on one plate to assess intra-assay precision.
Inter-assay Precision	Inter-Assay Precision (Precision across assays): Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)
Figure 3. Flow Cytometry analysis of MCF-7 cells using anti-KPNB1 antibody (AAA126181). Overlay histogram showing MCF-7 cells stained with AAA126181 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-KPNB1 Antibody (AAA126181, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of KPNB1 using anti-KPNB1 antibody (AAA126181). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human CACO-2 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human HL-60 whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-KPNB1 antigen affinity purified polyclonal antibody (#AAA126181) at 0.25 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for KPNB1 at approximately 97 kDa. The expected band size for KPNB1 is at 97 kDa.



IF (Immunofluorescence)
Figure 2. IF analysis of KPNB1 using anti-KPNB1 antibody (AAA126181). KPNB1 was detected in an immunocytochemical section of CACO-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-KPNB1 Antibody (AAA126181) overnight at 4 degree C. DyLight594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-KPNB1 antibody	Background: Growth differentiation factor 2 (GDF2) also known as bone morphogenetic protein (BMP)-9 is a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The preproprotein is proteolytically processed to generate each subunit of the disulfidelinked homodimer. This protein regulates cartilage and bone development, angiogenesis and differentiation of cholinergic central nervous system neurons. Homozygous null mice exhibit malformations of the vasculature and skeleton. Principle of the Assay: The Quick Picokine™ Human GDF2 Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid phase immunoassay specially designed to measure Human GDF2 in bone tissue, cell culture supernatants, serum plasma (heparin, EDTA) and urine. It uses our proprietary Quick ELISA technology. Quick ELISA technology employs capture antibodies conjugated to an affinity tag that is recognized by the polyclonal antibody used to coat our Quick ELISA plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. The kit contains recombinant Human GDF2 with immunogen: Expression system for standard: CHO; Immunogen sequence: S320-R429. To measure Human GDF2, add standards and samples to the wells, then add antibody cocktail. Wash the wells with PBS or TBS buffer, and add TMB. TMB is an HRP substrate and will be catalyzed to produce a blue color product, which changes into yellow after adding the acidic stop solution. The absorbance of the yellow product is linearly proportional to Human GDF2 in the sample. Read the absorbance of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Human GDF2 in the sample.
Product Categories/Family for anti-KPNB1 antibody	Primary Antibodies, Rabbit Polyclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	449784879
NCBI GeneID	3837
NCBI Accession #	NP_001263382.1
NCBI GenBank Nucleotide #	NM_001276453.1
UniProt Accession #	Q14974; Q14637; Q53XN2; Q96J27; B7ZAV6; D3DTT3
Molecular Weight	81,179 Da
NCBI Official Full Name	importin subunit beta-1 isoform 2
NCBI Official Synonym Full Names	karyopherin (importin) beta 1
NCBI Official Symbol	KPNB1
NCBI Official Synonym Symbols	IMB1; IPO1; IPOB; Impnb; NTF97
NCBI Protein Information	importin subunit beta-1; PTAC97; importin 1; importin 90; importin beta-1 subunit; importin-90; karyopherin subunit beta-1; nuclear factor p97; pore targeting complex 97 kDa subunit
UniProt Protein Name	Importin subunit beta-1
UniProt Gene Name	KPNB1
UniProt Synonym Gene Names	NTF97; PTAC97
UniProt Entry Name	IMB1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/kpnb1-antibody-western-blot-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/126181>