10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-RanBP2 Picoband Antibody

Catalog # ABO12909

Product Information

Application	WB
Primary Accession	P49792
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for E3 SUMO-protein ligase RanBP2(RANBP2) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5903
Other Names	E3 SUMO-protein ligase RanBP2, 6.3.2.-, 358 kDa nucleoporin, Nuclear pore complex protein Nup358, Nucleoporin Nup358, Ran-binding protein 2, RanBP2, p270, RANBP2, NUP358
Calculated MW	358199
Application Details	Western blot, 0.1-0.5 □g/ml, Mouse, Rat, Human
Subcellular Localization	Nucleus . Nucleus membrane . Nucleus, nuclear pore complex . Detected in diffuse and discrete intranuclear foci (PubMed:11839768). Cytoplasmic filaments (PubMed:7775481). .
Source	Eukaryota
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RanBP2 (3018-3057aa EQLAVRFKTKEVADCFKKTFEECQQNLMKLQKGHVSLAAE), different from the related mouse sequence by nine amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	RANBP2
Synonyms	NUP358
Function	E3 SUMO-protein ligase which facilitates SUMO1 and SUMO2 conjugation by UBE2I (PubMed:11792325, PubMed:12032081, PubMed:15378033, PubMed:15931224, PubMed:22194619). Involved in transport factor (Ran-GTP, karyopherin)-mediated protein import via the F-G repeat-containing domain which acts as a docking site for substrates (PubMed:7775481). Binds single-stranded RNA (in vitro) (PubMed:7775481). May bind DNA (PubMed:7775481). Component of the nuclear export pathway (PubMed:10078529). Specific docking site for the nuclear export factor exportin-1 (PubMed:10078529). Inhibits EIF4E- dependent mRNA export (PubMed:22902403). Sumoylates PML at 'Lys-490' which is essential for the proper assembly of PML-NB (PubMed:22155184). Recruits BICD2 to the nuclear envelope and cytoplasmic stacks of nuclear pore complex known as annulate lamellae during G2 phase of cell cycle (PubMed:20386726). Probable inactive PPIase with no peptidyl- prolyl cis-trans isomerase activity (PubMed:20676357, PubMed:23353830).
Cellular Location	Nucleus. Nucleus membrane. Nucleus, nuclear pore complex. Nucleus envelope. Note=Detected in diffuse and discrete intranuclear foci (PubMed:11839768). Cytoplasmic filaments (PubMed:7775481).

Background

RAN binding protein 2 (RANBP2) is protein which in humans is encoded by the RANBP2 gene. This gene encodes a very large RAN-binding protein that immunolocalizes to the nuclear pore complex. The protein is a giant scaffold and mosaic cyclophilin-related nucleoporin implicated in the Ran-GTPase cycle. And the encoded protein directly interacts with the E2 enzyme UBC9 and strongly enhances SUMO1 transfer from UBC9 to the SUMO1 target SP100. These findings place sumoylation at the cytoplasmic filaments of the nuclear pore complex and suggest that, for some substrates, modification and nuclear import are linked events. This gene is partially duplicated in a gene cluster that lies in a hot spot for recombination on chromosome 2q.

Images

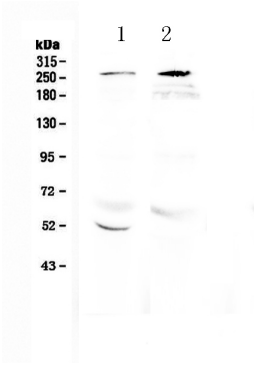


Figure 1. Western blot analysis of RanBP2 using anti-RanBP2 antibody (ABO12909).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.