

#4462 Store at -20°C

Ran Antibody


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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Hm Mk B	Endogenous	24	Rabbit	#P62826	5901

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Ran Antibody detects endogenous levels of total Ran protein. The antibody does not cross-react with other small GTPases of the Ras family.	
Species predicted to react based on 100% sequence homology:	D. melanogaster, Xenopus	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with two synthetic peptides corresponding to amino acids surrounding Arg29 and Asn143 of human Ran. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Ran is a small GTPase of the Ras family that plays a central role in the spacial and temporal organization of eukaryotic cells. During interphase, Ran-GDP localizes to the cytoplasm and Ran-GTP to the nucleus. This polarized localization of Ran ensures its role in nuclear transport (1). During mitosis, Ran-GTP is chromatin associated, where it promotes spindle assembly and nuclear envelope formation (1,2). In S phase, Ran-GTP associates with and inhibits MCM helicase, ensuring precise chromosomal DNA duplication during the cell cycle (3).	
Background References	1. Quimby, B.B. and Dasso, M. (2003) <i>Curr. Opin. Cell Biol.</i> 15, 338-344. 2. Hetzer, M. et al. (2002) <i>Nat. Cell Biol.</i> 4, 177-184. 3. Yamaguchi, R. and Newport, J. (2003) <i>Cell</i> 113, 115-125.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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