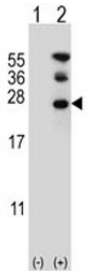
RAN Antibody (F49794)

Catalog No.	Formulation	Size
F49794-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F49794-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

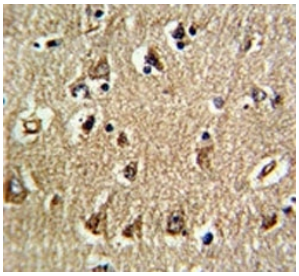
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Bovine, C. elegans, Chicken, Primate, Rat, Xenopus, Yeast, Zebrafish
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P62826
Applications	IHC (Paraffin) : 1:50-1:100 Flow Cytometry : 1:10-1:50 Western Blot : 1:1000
Limitations	This RAN antibody is available for research use only.

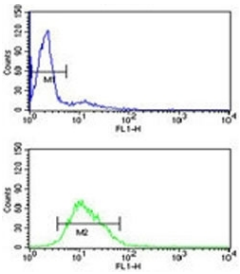
Western blot analysis of RAN antibody and HL-60 lysate.



Western blot analysis of RAN antibody and 293 cell lysate either nontransfected (Lane 1) or transiently transfected (2) with the RAN gene.



IHC analysis of FFPE human brain tissue stained with RAN antibody



RAN antibody flow cytometry analysis of HL-60 cells (green) compared to a negative control (blue). FITC-conjugated goat-anti-rabbit secondary Ab was used for the analysis.

Description

RAN (ras-related nuclear protein) is a small GTP binding protein belonging to the RAS superfamily that is essential for the translocation of RNA and proteins through the nuclear pore complex. The RAN protein is also involved in control of DNA synthesis and cell cycle progression. Nuclear localization of RAN requires the presence of regulator of chromosome condensation 1 (RCC1). Mutations in RAN disrupt DNA synthesis. Because of its many functions, it is likely that RAN interacts with several other proteins. RAN regulates formation and organization of the microtubule network independently of its role in the nucleus-cytosol exchange of macromolecules. RAN could be a key signaling molecule regulating microtubule polymerization during mitosis. RCC1 generates a high local concentration of RAN-GTP around chromatin which, in turn, induces the local nucleation of microtubules. RAN is an androgen receptor (AR) coactivator that binds differentially with different lengths of polyglutamine within the androgen receptor. Polyglutamine repeat expansion in the AR is linked to Kennedy's disease (X-linked spinal and bulbar muscular atrophy). RAN coactivation of the AR diminishes with polyglutamine expansion within the AR, and this weak coactivation may lead to partial androgen insensitivity during the development of Kennedy's disease.

Application Notes

Titration of the RAN antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 12-39 from the human protein was used as the immunogen for this RAN antibody.

Storage

Aliquot the RAN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.