



# Anti-RAN (full length) polyclonal antibody (DPAB-DC2661)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Antigen 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 Kennedys 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 Kennedys disease.

### Immunogen

RAN (AAH16654, 1 a.a. ~ 216 a.a) full-length recombinant protein with GST tag. The sequence is  
MAAQGEPQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIK  
FNVWDTAGQEKFGGLRDGYYIQAQCAIIMFDVTSRVTYKNVPNWHDLVRVCENIPIVLC  
GNKVDIKDRKVKAKSIVFHRKKNLQYYDISAKSNYNFEKPFLWLARKLIGDPNLEFVAMP  
ALAPPEVVM DPALAAQYEHDLVAQTALPDEDDDL

### Source/Host

Mouse

### Species Reactivity

Human

### Conjugate

Unconjugated

### Applications

WB (Cell lysate), WB (Recombinant protein), ELISA,

<b>Size</b>	50 µl
<b>Buffer</b>	50 % glycerol
<b>Preservative</b>	None
<b>Storage</b>	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">RAN RAN, member RAS oncogene family [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	RAN
<b>Synonyms</b>	RAN; RAN, member RAS oncogene family; TC4; Gsp1; ARA24; GTP-binding nuclear protein Ran; RanGTPase; GTPase Ran; OK/SW-cl.81; ras-like protein TC4; member RAS oncogene family; ras-related nuclear protein; guanosine triphosphatase Ran; androgen receptor-associated protein 24;
<b>Entrez Gene ID</b>	<a href="#">5901</a>
<b>Protein Refseq</b>	<a href="#">NP_006316</a>
<b>UniProt ID</b>	<a href="#">B4DV51</a>
<b>Chromosome Location</b>	12q24.3
<b>Pathway</b>	Androgen receptor signaling pathway; Canonical NF-kappaB pathway; Epstein-Barr virus infection; Export of Viral Ribonucleoproteins from Nucleus
<b>Function</b>	GTP binding; GTPase activity; androgen receptor binding; chromatin binding