Active Recombinant Human RAN protein, His-tagged

Cat. No. RAN-17H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human RAN fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
Description	Ran (TC4), a small GTP binding protein, is the heart of the nuclear transport process. It is involved in the directionality of the process that is regulated by GTP hydrolysis. Ran shuttles between the nucleus and the cytoplasm. In the nucleus, it exists in Ran-GTP form, which is maintained by the Ran-Guanine nucleotide exchange protein, RCC1, a nucleus specific, chromatin bound protein. Ran-GTP forms complexes with transport proteins that shuttle from the nucleus to the cytoplasm i.e. improtin β, CRM1/exportin1. In the cytoplasm, Ran intrinsic GTPase activity is stimulated by Ran-GAP causing the hydrolysis of GTP to GDP and disassembly of the resulted Ran-GDP from the transport protein. Ran-GDP reenters the nucleus by active transport as NTF2/Ran-GDP complex.
Form	Solution in 20 mM HEPES-KOH, 110 mM potassium acetate, 2 mM magnesium acetate, 0.5 mM EGTA, 2 mM DTT, and 5% glycerol, pH 7.3.
Bio-activity	Binds GDP at more than 0.1 molar ratio.
Purity	>90% (SDS-PAGE)
Applications	Ran, N-terminal histidine tagged, is a 26.6 kDa protein. It appears on SDS-PAGE as

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	a 31 kDa protein in low ionic strength buffer. In high ionic strength buffers, it appears as a ladder of bands probably representing oligomerization. Ran was purified in the presence of GDP.
Storage	Store product at -70 centigrade.

GENE INFORMATION

Gene Name	RAN RAN, member RAS oncogene family [Homo sapiens]
Official Symbol	RAN
Synonyms	RAN; RAN, member RAS oncogene family; GTP-binding nuclear protein Ran; ARA24; Gsp1; TC4; 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;
Gene ID	5901
mRNA Refseq	NM_006325
Protein Refseq	NP_006316
MIM	601179
UniProt ID	P62826

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