

# Recombinant Human Ran GTPase Activating Protein 1, GST-tagged

**Cat. No.** RANGAP1-682H    **Lot. No.** (See product label)

## SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Product Overview</b>  | Recombinant human RanGAP1 produced in <i>E. coli</i> fused to a GST-tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>            | <i>E. coli</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>       | RanGTPase-activating RanGAP1 was the first protein shown to be post-translationally modified with SUMO. In higher eukaryotes, the cellular localization of RanGAP1 is regulated by SUMOylation of its C-terminal domain. The target lysines of RanGAP1, as well as the C-terminus of mature SUMO-1, lie within mobile regions of the two proteins. Upon SUMOylation, RanGAP1 and SUMO-1 behave as "beads-on-a-string" joined by a flexible isopeptide tether and their structures and local dynamic features do not change significantly beyond the site of this covalent linkage. |
| <b>Source/Host</b>       | <i>E. coli</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Application</b>       | RanGAP1 acts as a very good control substrate for use in SUMOylation assays producing a product with a single SUMO modification as shown above.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Long Term Storage</b> | -80°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## GENE INFORMATION

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|------------------|-----------------------------------------------------------------|
| <b>Gene Name</b> | RANGAP1 Ran GTPase activating protein 1 [ <i>Homo sapiens</i> ] |
|------------------|-----------------------------------------------------------------|

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| <b>Synonyms</b>                     | Ran GTPase activating protein 1; SD; Fug1; KIAA1835; MGC20266; RANGAP1; ran GTPase-activating protein 1; segregation distortion; segregation distorter homolog; segregation distorter homolog (Drosophila); OTTHUMP00000198756; OTTHUMP00000198757; RanGAP1 |
| <b>Gene ID</b>                      | 5905                                                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>                  | NM_002883                                                                                                                                                                                                                                                   |
| <b>Protein Refseq</b>               | NP_002874                                                                                                                                                                                                                                                   |
| <b>MIM</b>                          | 602362                                                                                                                                                                                                                                                      |
| <b>UniProt ID</b>                   | P46060                                                                                                                                                                                                                                                      |
| <b>Chromosome Location</b>          | 22q13                                                                                                                                                                                                                                                       |
| <b>Pathway</b>                      | Cell Cycle, Mitotic                                                                                                                                                                                                                                         |
| <b>Function</b>                     | GTPase activator activity; Ran GTPase activator activity; protein binding                                                                                                                                                                                   |
| <b>PDB rendering based on 1z5s.</b> |                                                                                                                                                                         |