

## Recombinant Human RAP1GAP, His-tagged

**Cat. No.** RAP1GAP-30503TH **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant full length protein, corresponding to amino acids 1-663 of Human RAP1GAP with an N terminal His tag. Predicted mwt: 74 kDa;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 1-663 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>This gene encodes a type of GTPase-activating-protein (GAP) that down-regulates the activity of the ras-related RAP1 protein. RAP1 acts as a molecular switch by cycling between an inactive GDP-bound form and an active GTP-bound form. The product of this gene, RAP1GAP, promotes the hydrolysis of bound GTP and hence returns RAP1 to the inactive state whereas other proteins, guanine nucleotide exchange factors (GEFs), act as RAP1 activators by facilitating the conversion of RAP1 from the GDP- to the GTP-bound form. In general, ras subfamily proteins, such as RAP1, play key roles in receptor-linked signaling pathways that control cell growth and differentiation. RAP1 plays a role in diverse processes such as cell proliferation, adhesion, differentiation, and embryogenesis. Alternative splicing results in multiple transcript variants encoding distinct proteins.</p> |
| <b>Conjugation</b>      | HIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Form</b>             | Lyophilised:Reconstitute with 70 µl aqua dest.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| <b>Storage buffer</b>           | Preservative: None<br>Constituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage</b>                  | Store at 4°C. Upon reconstitution store at -80°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Sequences of amino acids</b> | <p>MIEKMQGSRMDEQRCSEFPPLKTEEDYIPYPSVHEVLGRE GPFPLILLPQFGGYWIE</p> <p>GTNHEITSIPETEPLQSPTTK VKLECNPTARIYRKHFLGKEHFNYYSLDTALGHLVFS</p> <p>L KYDVIGDQEHLRLLLRTKCRTHYHDVIPISCLTEFPNVV QMAKLVCEDEVNDRFYVPV</p> <p>LYPKASRLIVTFDEHVISNNFKFGVIYQKLGQTSEEELFSTNEESPAFVEFLEFLGQKV</p> <p>K LQDFKGFRGGLDVTHGQTGTESVYCNFRNKEIMFHVST KLPYTEGDAQQLQRKR</p> <p>HIGNDIVAVVFQDENTPFVPDM IASNFLHAYVVVQAEGGGPDGPLYKVSVTARDDV</p> <p>PFFG PPLPDPVFRKGPFEQFLLTKLINAHEYACYKA EKFAKLEERTRAALLETLYEE</p> <p>LHIHSQSMMGLGGDEDKMENGSGG GGFESFKRVIRSRSQSM DAMGLSNKKPNT</p> <p>VSTSHSGS FAPNPD LAKAAGISLIVPGKSPTRKKSGPFGSRRSSA IG IENIQEVQE</p> <p>KRESPPAGQKTPDSGHVSQEPKSENSS TQSSPEMPTTKNRAETAAQRAEALKDFS</p> <p>RSSSSASSFASVVEETEGVDGEDTGLESVSSSGTPHKRDSFIYSTWLEDS VSTTSG</p> <p>GSSPGPSRSPHPDAGKLGD PACPEIKIQLEAS EQHMPQLGC</p> |
| <b>Full Length</b>              | Full L.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## GENE INFORMATION

|                        |                                                                                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">RAP1GAP</a> <a href="#">RAP1 GTPase activating protein [ Homo sapiens ]</a>                                                                |
| <b>Official Symbol</b> | <a href="#">RAP1GAP</a>                                                                                                                                |
| <b>Synonyms</b>        | RAP1GAP; RAP1 GTPase activating protein; RAP1, GTPase activating protein 1 , RAP1GA1; rap1 GTPase-activating protein 1; KIAA0474; RAP1GAP1; RAP1GAPII; |
| <b>Gene ID</b>         | <a href="#">5909</a>                                                                                                                                   |

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>mRNA Refseq</b>         | <a href="#">NM_001145657</a>                                                                                                                                                                        |
| <b>Protein Refseq</b>      | <a href="#">NP_001139129</a>                                                                                                                                                                        |
| <b>MIM</b>                 | <a href="#">600278</a>                                                                                                                                                                              |
| <b>Uniprot ID</b>          | <a href="#">P47736</a>                                                                                                                                                                              |
| <b>Chromosome Location</b> | 1p36.1-p35                                                                                                                                                                                          |
| <b>Pathway</b>             | Adaptive Immune System, organism-specific biosystem; IL-5 Signaling Pathway, organism-specific biosystem; Immune System, organism-specific biosystem; Rap1 signalling, organism-specific biosystem; |
| <b>Function</b>            | GTPase activator activity; GTPase activity; Ras GTPase binding; protein binding; protein homodimerization activity;                                                                                 |

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