

## Product datasheet for PH308271

### RAP1GAP (NM\_002885) Human Mass Spec Standard

#### Product data:

|                                       |   |
|---------------------------------------|---|
| Product Type:                         | Mass Spec Standards   |
| Description:                          | RAP1GAP MS Standard C13 and N15-labeled recombinant protein (NP_002876) |
| Species:                              | Human   |
| Expression Host:                      | HEK293  |
| Expression cDNA Clone or AA Sequence: | RC208271  |
| Predicted MW:                         | 73.3 kDa  |
| Protein Sequence:                     | >RC208271 protein sequence<br>Red=Cloning site Green=Tags(s)            |

MIEKMQGSRMDEQRCSFPPLKTEEDYIPYPSVHEVLGREGPFPLILLPQFGGYWIEGTNHEITSIPETE  
PLQSPPTTKVKLECNPTARIYRKHFLGKEHFNYSLDAALGHLVFLSKYDVIQDQEHRLLLRTRKCRTHD  
VIPISCLTEFPNVVQMAKLVCEDEVNDRFYPLVYPKASRLIVTFDEHVISNNFKFVYIYQKLGQTSEEEL  
FSTNEESPAFVEFLEFLGQKVKLQDFKGRGGLDVTHGQTGTESVYCNFRNKEIMFHVSTKLPYTEGDAQ  
QLQRKRHIGNDI VAVVFQDENTPLVPDMIASNFLHAYVVVQAEGGGPDGPLYKVSVTARDVPPFFGPPLP  
DPAVFRKGPEFQEFLLTKLINAAYACYKAEKFAKLEERTRAALETLYEELHIHSQSMMLGGDEDKMN  
GSGGGGFESFKRVIRSRQSMDAMGLSNKKPNTVSTSHSGSFAPNNDLAKAAGISLIVPGKSPTRKKS  
GPFGRSSAIGIENIQEVQEKRESPPAGQKTPDSGHVSQEPKSENSSTQSSPEMPTTKNRAETAAQRAE  
ALKDFSRSSSSASFASVVEETEGVDGDTGLESVSSSGTPHKRDSFIYSTWLEDSVSTTSGGSSPGPSR  
SPHPDAGKLGDPACPEIKIQLEASEQHMPQLGC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

|                  |  |
|------------------|--|
| Tag:             | C-Myc/DDK  |
| Purity:          | > 80% as determined by SDS-PAGE and Coomassie blue staining                                |
| Concentration:   | >0.05 µg/µL as determined by microplate BCA method   |
| Labeling Method: | Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine                       |
| Buffer:          | 25 mM Tris-HCl, 100 mM glycine, pH 7.3   |
| Storage:         | Store at -80°C. Avoid repeated freeze-thaw cycles.   |
| Stability:       | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| RefSeq:          | <u><a href="#">NP_002876</a></u>   |
| RefSeq Size:     | 3334   |

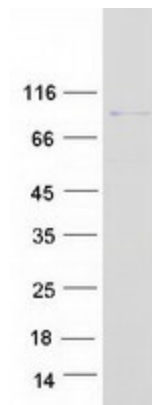


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|               |   |
|---------------|---|
| RefSeq ORF:   | 1989  |
| Synonyms:     | RAP1GA1; RAP1GAP1; RAP1GAPII; RAPGAP                |
| Locus ID:     | 5909  |
| UniProt ID:   | <a href="#">P47736</a> , <a href="#">A0A024RAB5</a> |
| Cytogenetics: | 1p36.12   |

**Summary:** 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. [provided by RefSeq, Aug 2011]

### Product images:



Coomassie blue staining of purified RAP1GAP protein (Cat# [TP308271]). The protein was produced from HEK293T cells transfected with RAP1GAP cDNA clone (Cat# [RC208271]) using MegaTran 2.0 (Cat# [TT210002]).