

# Recombinant Human APPL1, His-tagged

**Cat. No.** APPL1-1001H    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Product Overview</b>    | Recombinant Human APPL1 was produced in <i>E. Coli</i> containing 709 AA, N-terminal His-tag and the protease cleavage site, 31 extra AA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>         | APPL1, an adaptor protein containing an NH2-terminal Bin/Amphiphysin/Rvs (BAR) domain, a central pleckstrin homology (PH) domain and a COOH-terminal phosphotyrosine binding (PTB) domain, was originally identified as an interacting partner of Akt in a yeast two-hybrid assay using Akt2 as a bait. APPL1 binds to a number of cell surface receptors (TrkA, DCC, adiponectin, FSH) and intracellular signaling molecules (small GTPase Rab5, GIPC and inositol 5- phosphatase, suggesting that APPL1 may act as a common relay to coordinate diverse signaling cascades. APPL1 potentiates insulin-mediated Akt activation by counteracting the effect of the Akt inhibitor TRB3. |
| <b>Amino Acid Sequence</b> | MSYYHHHHHH DYDIPTTENL YFQGAMGSGI QPGIDKLPIE ETLEDSPQTR<br>SLLGVFEEDA TAISNYMNQL YQAMHRIYDA QNELSAATHL TSKLLKEYEK<br>QRFPLGGDDE VMSSTLQQFS KVIDELSSCH AVLSTQLADA MMFPITQFKE<br>RDLKEILTLK EVFQIASNDH DAAINRYSRL SKKRENDKVK YEVTEDVYTS<br>RKKQHQTMMH YFCALNTLQY KKKIALLEPL LGYMQAQISF FKMGSENLNE<br>QLEEFLANIG TSVQNVRRREM DSDIETMQQT IEDLEVASDP LYVPDPDPTK<br>FPVNRNLTRK AGYLNARNKT GLVSSTWDRQ FYFTQGGNLM SQARGDVAGG                                                                                                                                                                                                                                                                    |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

LAMDIDNCSV MAVDCEDRRY CFQITSFDGK KSSILQAESK KDHEEWICTI  
 NNISKQIYLS ENPEETAARV NQSALEAVTP SPSFQQRHES LRPAAGQSRP  
 PTARTSSSGS LGSESTNLAA LSLDSLVPD TPIQFDIISP VCEDQPGQAK  
 AFGQGGRRTN PFGESGGSTK SETEDSILHQ LFIVRFLGSM EVKSDDHPDV  
 VYETMRQILA ARAIHNIFRM TESHLLVTCD CLKLIDPQTQ VTRLTFPLPC  
 VVLYATHQEN KRLFGFVLRT SSGRSESMLS SVCYIFESNN EGEKICDSVG  
 LAKQIALHAE LDRRASEKQK EIERVKEKQQ KELNKQKQIE KDLEEQSRLI  
 AASSRPNQAS SEGQFVVLSS SQSEESDLGE GGKKRESEA

|                             |                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>                 | Filtered (0.22 µm) and lyophilized in 1 mg/mL in PBS.                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>               | >98%.                                                                                                                                                                                                                                                                                                                                                             |
| <b>Quality Control Test</b> | BCA to determine quantity of the protein. SDS PAGE to determine purity of the protein.                                                                                                                                                                                                                                                                            |
| <b>Applications</b>         | ELISA, Western blotting, Immunoprecipitation.                                                                                                                                                                                                                                                                                                                     |
| <b>Reconstitution</b>       | Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.                                                                                                      |
| <b>Storage</b>              | Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C. |

## GENE INFORMATION

|                  |                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------|
| <b>Gene Name</b> | APPL1 adaptor protein, phosphotyrosine interaction, PH domain and leucine zipper containing 1 [ |
|------------------|-------------------------------------------------------------------------------------------------|

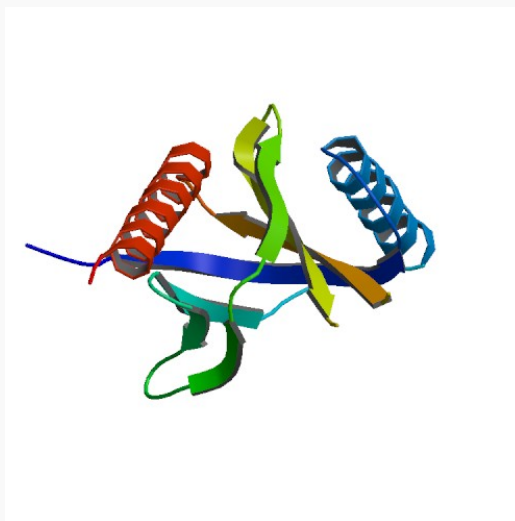
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|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | <a href="#">Homo sapiens ]</a>                                                                                                                                                                                                                                                                                                        |
| <b>Synonyms</b>            | APPL1; adaptor protein, phosphotyrosine interaction, PH domain and leucine zipper containing 1; APPL; DIP13alpha; AKT2 interactor; signaling adaptor protein<br>DIP13alpha; adaptor protein containing pH domain, PTB domain and leucine zipper motif 1; DCC-interacting protein 13-alpha; Dip13-alpha; DIP13A; KIAA1428; Dip13-alpha |
| <b>Gene ID</b>             | <a href="#">26060</a>                                                                                                                                                                                                                                                                                                                 |
| <b>mRNA Refseq</b>         | <a href="#">NM_012096</a>                                                                                                                                                                                                                                                                                                             |
| <b>Protein Refseq</b>      | <a href="#">NP_036228</a>                                                                                                                                                                                                                                                                                                             |
| <b>MIM</b>                 | <a href="#">604299</a>                                                                                                                                                                                                                                                                                                                |
| <b>UniProt ID</b>          | <a href="#">Q9UKG1</a>                                                                                                                                                                                                                                                                                                                |
| <b>Chromosome Location</b> | 3p21.1-p14.3                                                                                                                                                                                                                                                                                                                          |
| <b>Pathway</b>             | Colorectal cancer; Pathways in cancer                                                                                                                                                                                                                                                                                                 |
| <b>Function</b>            | protein binding; protein kinase B binding                                                                                                                                                                                                                                                                                             |

PDB rendering based  
on 2ela.



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