

Product datasheet

Recombinant human CDK2 + Cyclin A2 protein
ab196060

2 Images

| Description | |
|---------------------------------|--|
| Product name | Recombinant human CDK2 + Cyclin A2 protein |
| Biological activity | Specific activity 390 pmol/min/μg. Kinase buffer containing 1 mM DTT using Histone H1 (0.1 mg/ml) substrate and 20 μM ATP at 30°C for 30 min. The amount of ATP transferred was calculated using Kinase reagents |
| Purity | >= 64 % SDS-PAGE. Affinity purified. |
| Expression system | Baculovirus infected Sf9 cells |
| Accession | <u>P24941</u> <u>P20248</u> |
| Protein length | Protein fragment |
| Animal free | No |
| Nature | Recombinant |
| Amino Acid Sequence 1 | |
| Species | Human |
| Sequence | ENFQKVEKIGEGTYGVVYKARNKLTGEVVALKKIRLDTETE GVPSTAIRESISLLKELNH PNVKKLDVIHTENKLYLVFEFLHQDLKKFMDASALTGI PLPLIKSYLFQLLQGLAFCHS HRVLHRDLKPQNLLINTEGAIKLADFG LARAFGVPVRTYTHEVVTWYRAPEILLGCKYY STAVDIWSLGCIFAE MVTRRALFPGDSEIDQLFRIFRTLGTPDEVVWPGVTSMPD YKPSF PKW ARQDFSQVVPPLDEDGRSLLSQMLHYDPNKRISAKAALA HPFFQDVTGPV PHLRL |
| Predicted molecular weight | 61 kDa including tags |
| Amino acids | 2 to 298 |
| Tags | GST tag N-Terminus |
| Additional sequence information | (NM_001798) |
| Amino Acid Sequence 2 | |

| | |
|--|---|
| Species | Human |
| Sequence | EVPDYHE DIHTYLRME VKCKPKVGYM KKQPDITNSM RAILVDWLVE VGEEYKLQNE TLHLAVNYID RFLSSMSVLR GKLQLVGTA MLLASKFEEI YPPEVAEFVY ITDDTYTKKQ VLRMEHLVLK VLTFDLAAPT VNQFLTQYFL HQQPANCKVE SLAMFLGELS LIDADPYLKY LPSVIAGAAF HLALYTVTGQ SWPESLIRKT GYTLESLKPC LMDLHQTYLK APQHAQQSIR EKYKNSKYHG VSLNPPETL NL |
| Predicted molecular weight | 34 kDa including tags |
| Amino acids | 174 to 432 |
| Tags | His tag N-Terminus , GST tag N-Terminus |
| Additional sequence information | Cyclin A2 (NM_001237) |

Specifications

Our **Abpromise guarantee** covers the use of **ab196060** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| | |
|---------------------|--------------------|
| Applications | Functional Studies |
| | SDS-PAGE |

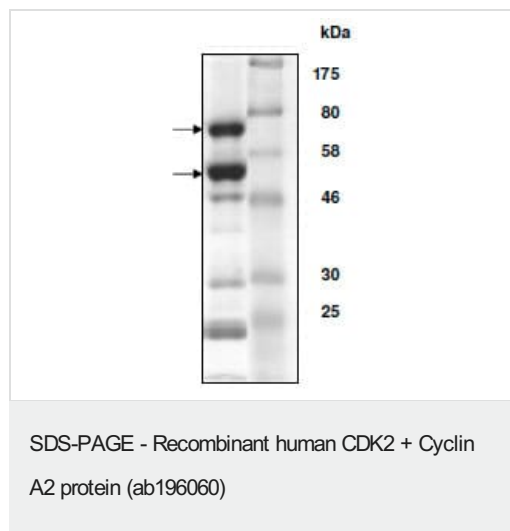
| | |
|-------------|--------|
| Form | Liquid |
|-------------|--------|

Preparation and Storage

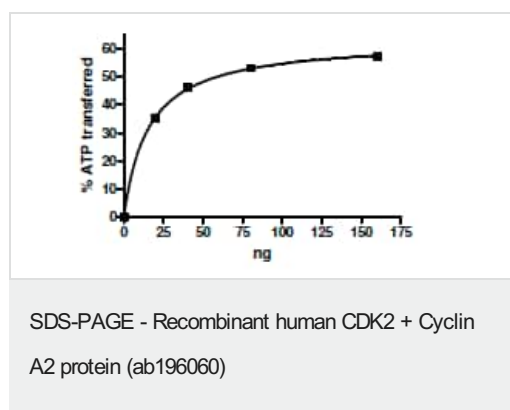
| | |
|------------------------------|--|
| Stability and Storage | <p>Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 7.50</p> <p>Constituents: 0.79% Tris HCl, 0.87% Sodium chloride, 0.004% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.004% EGTA, 0.003% EDTA, 0.002% PMSF, 25% Glycerol (glycerin, glycerine)</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p> |
|------------------------------|--|

General Info

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|------------------------------|--|
| Relevance | <p>CDK2 is a member of the Ser/Thr protein kinase family. This protein kinase is highly similar to the gene products of <i>S. cerevisiae</i> cdc28, and <i>S. pombe</i> cdc2. It is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and essential for cell cycle G1/S phase transition. This protein associates with and regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by its protein phosphorylation. Cyclin A2 belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. In contrast to cyclin A1, which is present only in germ cells, this cyclin is expressed in all tissues tested. This cyclin binds and activates CDC2 or CDK2 kinases, and thus promotes both cell cycle G1/S and G2/M transitions.</p> |
| Cellular localization | Nuclear |



SDS-PAGE analysis of ab196060 on 10% SDS-PAGE gel and stained with Coomassie blue (top band Cyclin A2; bottom band: Cdk2).



Specific activity of ab196060

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