

# Recombinant Human CDK2 cell lysate

**Cat. No.** CDK2-708HCL    **Lot. No.** (See product label)

## SPECIFICATION

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>        | Human CDK2 / p33 derived in Baculovirus-Insect cells. The whole cell lysate is provided in 1X Sample Buffer. Browse all transfected cell lysate positive controls                                                                                                                                                                                                                                                                                   |
| <b>Species</b>                 | Human                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>                  | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Preparation method</b>      | Transfected cells were cultured for 48hrs before collection. The cells were lysed in modified RIPA buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation and then centrifuged to clarify the lysate. The cell lysate was boiled for 5 minutes in 1 x SDS sample buffer (50 mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized. |
| <b>Lysis buffer</b>            | Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF                                                                                                                                                                                                                                                                                                               |
| <b>Quality control Testing</b> | 12.5% SDS-PAGE Stained with Coomassie Blue                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Recommended Usage</b>       | 1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube. 2. Re-dissolve the pellet using 200µL pure water and boiled for 2-5 min. 3. Store it at -80°C. Recommend to aliquot the cell lysate into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles. Notes: The lysate is ready to load on SDS-PAGE for Western blot application. If dissociating conditions are required, add             |

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|                            |                                                                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | reducing agent prior to heating.                                                                                                                                                      |
| <b>Stability</b>           | Samples are stable for up to twelve months from date of receipt at -80°C                                                                                                              |
| <b>Storage Buffer</b>      | 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF                                                                             |
| <b>Storage Instruction</b> | Lysate samples are stable for 12 months from date of receipt when stored at -80°C. Avoid repeated freeze-thaw cycles. Prior to SDS-PAGE fractionation, boil the lysate for 5 minutes. |

## GENE INFORMATION

|                            |                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | CDK2 cyclin-dependent kinase 2 [ Homo sapiens ]                                                                                                      |
| <b>Official Symbol</b>     | CDK2                                                                                                                                                 |
| <b>Synonyms</b>            | CDK2; cyclin-dependent kinase 2; p33 protein kinase; cell division kinase 2; cdc2-related protein kinase; cell division protein kinase 2; p33(CDK2); |
| <b>Gene ID</b>             | 1017                                                                                                                                                 |
| <b>mRNA Refseq</b>         | NM_001798                                                                                                                                            |
| <b>Protein Refseq</b>      | NP_001789                                                                                                                                            |
| <b>MIM</b>                 | 116953                                                                                                                                               |
| <b>UniProt ID</b>          | P24941                                                                                                                                               |
| <b>Chromosome Location</b> | 12q13                                                                                                                                                |

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**Pathway**

APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem;  
Activation of ATR in response to replication stress, organism-specific biosystem;  
Activation of the pre-replicative complex, organism-specific biosystem; B Cell  
Receptor Signaling Pathway, organism-specific biosystem; BARD1 signaling events,  
organism-specific biosystem; CDK-mediated phosphorylation and removal of Cdc6,  
organism-specific biosystem; Cell Cycle, organism-specific biosystem;

**Function**

ATP binding; cyclin binding; cyclin-dependent protein kinase activity; cyclin-  
dependent protein kinase activity; contributes\_to histone kinase activity; kinase  
activity; metal ion binding; nucleotide binding; protein binding; protein kinase activity;

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