

## Recombinant Human PLK2, His-tagged

**Cat. No.** PLK2-31031TH **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b>    | Recombinant full length protein, corresponding to amino acids 1-685 of Human PLK2, with His tag at N terminal.                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>       | 1-685 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>         | The protein encoded by this gene is a member of the polo family of serine/threonine protein kinases that have a role in normal cell division. This gene is most abundantly expressed in testis, spleen and fetal tissues, and its expression is inducible by serum, suggesting that it may also play an important role in cells undergoing rapid cell division. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. |
| <b>Conjugation</b>         | HIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Biological activity</b> | 100 U/mg. One unit is defined as the amount of enzyme that will phosphorylate 1 nmol of casein substrate per minute at pH 7.4 and 30C. Assay buffer: 50 mM HEPES, pH 7.4, 3 mM MgCl <sub>2</sub> , 3 mM MnCl <sub>2</sub> , 1 mM DTT, 3 uM Na-orthovanadate, 0.1 mM ATP.                                                                                                                                                                                             |
| <b>Form</b>                | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Storage buffer</b>      | Preservative: None<br>Constituents: 50% Glycerol, 0.05% Tween 20, 3mM DTT, 25mM Tris HCl, 100mM Sodium chloride, pH 8.0                                                                                                                                                                                                                                                                                                                                              |

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| <b>Storage</b>                  | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Sequences of amino acids</b> | <p>MELLRTITYQ PAASTKMCEQ ALGKGCGADS KKKRPPQPPE ESQPPQSQAQ<br/> VPPAAPHHHHHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFACYEMT<br/> DLTNNKVYAA KIIPHSRVAKPHQREKIDKE IELHRILHHK HVVQFYHYFE<br/> DKENIYILLE YCSRRSMAHI LKARKVLTEPEVRYLRQIV SGLKYLHEQE<br/> ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTICGTPNYLSPE<br/> VLNKQGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR<br/> CIREARYTMPSSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDEFLQGFTP<br/> DRLSSSCCHT VPDFHLSSPAKNFFKAAAA LFGGKKDKAR YIDTHNRVSK<br/> EDEDIYKLRH DLKKSITQQ PSKHRTDEELQPPTTTVARS GTPAVENKQQ<br/> IGDAIRMIVR GTLGSCSSSS ECLEDSTMGS VADTVARVLRGCLNMPEAD<br/> CIPKEQLSTS FQWVTKWVDY SNKYGFGYQL SDHTVGVLFN<br/> NGAHMSLLPDKKTVHYAEL GQCSVFPATD APEQFISQVT VLKYFSHYME<br/> ENLMDGGDLP SVTDIRRPRLYLLQWLKSDK ALMMLFNDGT FQVNFYHDHT<br/> KIIICSQNEE YLLTYINEDR ISTTFRLLTLLMSGCSSELK NRMEYALNML LQRCN</p> |
| <b>Sequence Similarities</b>    | Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily.Contains 2 POLO box domains.Contains 1 protein kinase domain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Full Length</b>              | Full L.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>GENE INFORMATION</b>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gene Name</b>                | PLK2 polo-like kinase 2 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Official Symbol</b>          | PLK2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>                 | PLK2; polo-like kinase 2; polo like kinase 2 (Drosophila); serine/threonine-protein kinase PLK2; serum inducible kinase; SNK;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                     |                                                                                                                                      |
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| Gene ID             | 10769                                                                                                                                |
| mRNA Refseq         | NM_001252226                                                                                                                         |
| Protein Refseq      | NP_001239155                                                                                                                         |
| MIM                 | 607023                                                                                                                               |
| Uniprot ID          | Q9NYY3                                                                                                                               |
| Chromosome Location | 5q12.1-q13.2                                                                                                                         |
| Pathway             | PLK2 and PLK4 events, organism-specific biosystem; Polo-like kinase signaling events in the cell cycle, organism-specific biosystem; |
| Function            | ATP binding; nucleotide binding; protein serine/threonine kinase activity; signal transducer activity;                               |

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