

Product datasheet for **TP720567M**

p21 (CDKN1A) (NM_000389) Human Recombinant Protein

Product data:

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| Product Type: | Recombinant Proteins |
| Description: | Recombinant protein of human cyclin-dependent kinase inhibitor 1A (p21, Cip1) (CDKN1A), transcript variant 1 |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | Ser2-Pro164 |
| Tag: | C-His |
| Predicted MW: | 19.3 kDa |
| Concentration: | lot specific |
| Purity: | >95% as determined by SDS-PAGE and Coomassie blue staining |
| Buffer: | Provided lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl |
| Endotoxin: | < 0.1 EU per µg protein as determined by LAL test |
| Reconstitution Method: | Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH ₂ O. It is not recommended to reconstitute a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. |
| Storage: | Store at -80°C. |
| Stability: | Stable for at least 6 months from date of receipt under proper storage and handling conditions. |
| RefSeq: | NP_000380 |
| Locus ID: | 1026 |
| UniProt ID: | P38936 , A0A024RCX5 |
| Cytogenetics: | 6p21.2 |
| Synonyms: | CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1 |



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Summary:

This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene. [provided by RefSeq, Sep 2015]

Protein Families:

Druggable Genome

Protein Pathways:

Bladder cancer, Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Glioma, Melanoma, p53 signaling pathway, Pathways in cancer, Prostate cancer

Product images: