For Research Use Only

Recombinant Human P21 protein (rFc Tag)

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Catalog Number: Eg4802

Basic Information

Species:
Human

Purity:
>90 %, SDS-PAGE

Tag:
C-rFc

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/μg protein, LAL method

Source:
HEK293-derived Human P21 protein Met1-Pro164 (Accession# P38936) with a rabbit IgG Fc tag at the C-terminus

GeneID:
1026

Accession:
P38936

Predicted Molecular Mass:
44.4 kDa

SDS-PAGE:
17 kDa & 30-32 kDa & 45-50 kDa, reducing (R) condition

Formulation:
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

P21 (also known as CIP1, WAF1) is a cyclin-dependent kinase inhibitor. P21 binds to and inhibits the activity of cyclin-CDK2 or -CDK4 complexes, and thus functions as a regulator of cell cycle progression at the G1 phase. The expression of P21 is induced by wild-type but not mutant p53 protein, through which P21 mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. P21 can interact with proliferating cell nuclear antigen (PCNA), and plays a regulatory role in S phase DNA replication and DNA damage repair. P21 was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of CDK2, and may be instrumental in the execution of apoptosis following caspase activation.

References

1. Deiry WS. et al.(1994). Cancer Res. 54: 1169-74.
2. Daniel Lew. et al. (2008). Mol Biol Cell. 19: 65-77.
3. Abbas T. et al. (2009). Nat. Rev. Cancer. 9: 400-414.
4. Chang BD. et al. (2002). Proc. Natl. Acad. Sci. U. S. A. 99: 389-394.
5. provided by RefSeq, Jul 2008.

Synonyms

For technical support and original validation data for this product please contact

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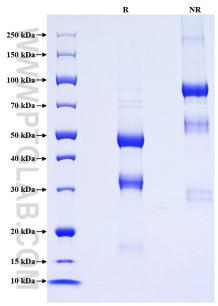
Selected Validation Data



Purity of Recombinant Human P21 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.