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Product Information

CHKtide, CHK1 Substrate Peptide

Product Number **C 7734**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Product Description

Sequence: KKKVSRSGLYRSPSPENLNRR; LYS-LYS-LYS-VAL-SER-ARG-SER-GLY-LEU-TYR-ARG-SER-PRO-SER-MET-PRO-GLU-ASN-LEU-ASN-ARG-PRO-ARG.

Molecular weight: 2701 Daltons

CHKtide is a synthetic peptide suitable as a substrate for CHK1. CHK, a protein kinase, is expressed in response to DNA damage to terminate cell cycle progression so that the cell can make repairs. DNA damage leads to an increase in phosphorylation of the CHK1 enzyme by a Rad3 dependent process. When phosphorylated by Rad3, CHK1 is thought to inhibit the dephosphorylation of Cdc2. Cdc2 is a cyclin-dependent kinase that induces mitosis, therefore, inhibition of this kinase leads to cell cycle arrest.

CHKtide is supplied as a frozen solution in deionized water.

Precautions and Disclaimer

The product is for laboratory research only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

CHKTIDE is shipped on dry ice and should be stored at $-20\text{ }^{\circ}\text{C}$ or colder. Store as single-use aliquots to avoid repeated freezing and thawing. Do not store in frost-free freezers. The product is stable for at least 1 year at $-20\text{ }^{\circ}\text{C}$.

References

1. Furnari, B., et al., Cdc25 Mitotic Inducer Targeted by Chk1 DNA Damage Checkpoint Kinase. *Science*, **277**, 1495-97 (1997).
2. Sanchez, Y., et al, Conservation of the Chk1 Checkpoint Pathway in Mammals: Linkage of DNA Damage to Cdk Regulation Through Cdc25. *Science*, **277**, 1497-01 (1997).

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