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Product Information

Nedd8
human, recombinant
expressed in *E. coli*

Product Number **N 8529**
Storage Temperature $-70\text{ }^{\circ}\text{C}$

Product Description

Nedd8 is a human, recombinant protein produced from a cDNA sequence encoding human Nedd8 expressed in *E. coli*. Purity is minimum 95% (SDS-PAGE). The molecular mass of Nedd8 is approximately 8.6 kDa. The range of concentrations used for the protein conjugation *in vitro* is 20-100 μM depending on conditions.

Nedd8 is expressed in proliferating cells and is down-regulated upon cellular differentiation. Nedd8 is necessary for ubiquitination activity in cell extracts. The ubiquitin-like protein Nedd8 is conjugated to target proteins by ubiquitin carrier protein 12 (Ubc12).¹ Nedd8 conjugation is implicated in the regulation of p27(Kip1)² turnover and is known to modify members of the Cdc53 and cullin families of ubiquitin-protein ligases.^{3,4}

Reagent

Recombinant human Nedd8 is supplied as a solution in 50 mM HEPES, pH 8.0, containing 150 mM NaCl and 1 mM DTT.

Precautions and Disclaimer

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

Storage/Stability

Recombinant human Nedd8 ships on dry ice and should be stored at $-70\text{ }^{\circ}\text{C}$. It is stable to multiple freeze/thaw cycles.

References

1. Gong, L., and Yeh, E.T., Identification of the activating and conjugating enzymes of the NEDD8 conjugation pathway. *J. Biol. Chem.*, **274**, 12036-12042 (1999).
2. Podust, V. N., et al., A Nedd8 conjugation pathway is essential for proteolytic targeting of p27Kip1 by ubiquitination. *Proc. Natl. Acad. Sci. USA*, **97**, 4579-4584 (2000).
3. Wu, K., et al., Conjugation of Nedd8 to CUL1 enhances the ability of the ROC1-CUL1 complex to promote ubiquitin polymerization. *J. Biol. Chem.*, **275**, 32317-32324 (2000).
4. Tateishi, K., et al., The NEDD8 system is essential for cell cycle progression and morphogenetic pathway in mice. *J. Cell. Biol.*, **155**, 571-580 (2001).

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