

Recombinant Full Length Human NEDD8 Protein, AMC Labeled

Cat. No. NEDD8-03HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	This product consists of a full-length, mature NEDD8 polypeptide (amino acids 1-76) recombinantly expressed in E. coli, conjugated on its c-terminus to a quenched AMC110 dye. Once hydrolyzed the free AMC provides excellent utility for real time assessment of enzyme activity at excitation (345 nm) and emission (445 nm). Typical working range is 50-500nM.
Species	Human
Source	E.coli
ProteinLength	1-81aa
Description	NEDD8 (Neural Precursor Cell Expressed, Developmentally Down-Regulated 8) is a ubiquitin like protein that plays an important role in regulating development and the cell cycle. NEDD8 is conjugated to a target protein via a signaling cascade similar to ubiquitin: a NEDD8 specific E1 activating enzyme (APPBP1/UBA3) adenylates the c-terminus of NEDD8 which is then subsequently passed to an E2 conjugating enzyme (UBE2M or UBE2F) that facilitates covalent attachment of NEDD8 to a cullin subunit of an SCF E3 ubiquitin ligase.
Conjugation/Label	AMC
Molecular Mass	8.7 kDa
Purity	>99% by LCMS

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Usage	Typical working range: 50-500nM
Applications	NEDD8-Rh 110 can be used as a substrate for enzymes exhibiting deNEDDylating activity, e.g UCH-L3, UCH-L1, COP9 Signalosome, and NEDP1.
Notes	For Research Use Only, Not For Use In Humans.
Storage	Store at -80 centigrade. Avoid multiple freeze thaw cycles.
Storage Buffer	50mM MES, pH 6.0
Concentration	200 µM, 1.74 mg/mL
Detection Method	Fluorescence
Substrate Properties	Protein-Based Substrate
Excitation/Emission (nm)	The Excitation and Emission of this substrate is 345nm and 445nm respectively.

GENE INFORMATION

Gene Name	NEDD8 neural precursor cell expressed, developmentally down-regulated 8 [Homo sapiens]
Official Symbol	NEDD8
Synonyms	NEDD8; neural precursor cell expressed, developmentally down-regulated 8; Nedd 8; neddylin; ubiquitin-like protein Nedd8; NEDD-8; FLJ43224; MGC104393; MGC125896; MGC125897;

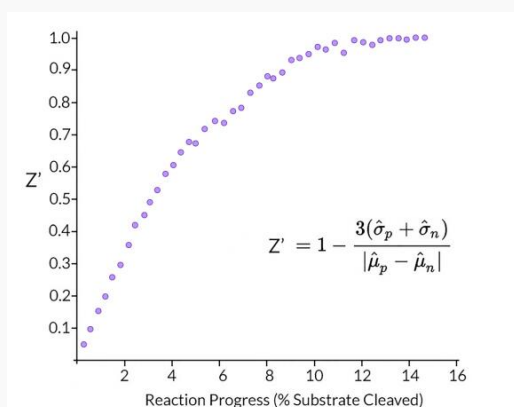
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Gene ID	4738
mRNA Refseq	NM_006156
Protein Refseq	NP_006147
MIM	603171
UniProt ID	Q15843

Robustness of NEDD8-AMC in an HTS format.



Fluorescent substrate NEDD8-AMC was incubated with and without 30 pM NEDP1 in a 384 well plate (n = 16), and progress curves were normalized to the maximum fluorescence signal to produce "% reaction progress". The "Z'" value, a statistical parameter widely used in the evaluation of screening assays, was calculated at each timepoint.

Signal to Background

The signal to background ratio was determined by 100% hydrolysis of 50nM NEDD8-AMC to liberate the quenched conjugate. Assay Buffer: 50mM HEPES pH7.5, 1mM TCEP, 0.1mg/ml BSA.

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**Mass Spectrometry
Data**