

**MATERIAL DATA SHEET****NEDD8 E1 (APPBP1/UBA3), human recombinant****Cat. # E-313**

The ATP-coupled activation of NEDD8 that is required for subsequent charging of the NEDD8-specific E2 UbcH12 is catalyzed by heterodimeric APPBP1-Uba3 in humans. The enzyme catalyzes the activation of the C-terminal carboxyl group of NEDD8 by forming a high-energy thioester bond in an ATP-dependent manner. Uba3 shows 43% homology to the C-terminal half of the ubiquitin activating E1 enzyme Uba1. The Uba3-catalyzed activation of NEDD8 exhibits an absolute requirement for APPBP1 which has high homology to the N-terminal half of Uba1.

**Product Information**

<b>Quantity:</b>	25 µg
<b>Stock:</b>	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 200 mM NaCl. Actual concentration will vary with specific Lot #.
<b>Purity:</b>	> 95% by SDS-PAGE
<b>MW:</b>	109 kDa

**Use & Storage**

<b>Use:</b>	Typical enzyme concentration to support conjugation <i>in vitro</i> is 50-200 nM depending on conditions.
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

**Literature**

<b>References:</b>	Lake M.W., <i>et al.</i> (2001) <u>Nature</u> . <b>414</b> :325-328 Hemelaar J., <i>et al.</i> (2004) <u>Mol. Cell. Biol.</u> <b>24</b> :84-95 Walden H., <i>et al.</i> (2003) <u>Nature</u> . <b>422</b> :330-334
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