

MATERIAL DATA SHEET**NEDD4, human recombinant****Cat. # E3-290**

NEDD4 (Neural precursor cell expressed developmentally down-regulated protein 4) is a Ubiquitin E3 ligase and the prototypical member of an extended family of HECT domain ligases. Human family members include NEDD4, NEDD4-2, ITCH, SMURF1, SMURF2, WWP1, WWP2, NEDDL1 and NEDDL2. In addition to the HECT domain, NEDD4 family members also contain a C2 domain and one or more WW domains. With a predicted molecular weight of 150 kDa, NEDD4 is expressed in most human tissues where it localizes primarily to the perinuclear and other membrane regions. Evidence suggests that NEDD4 down-regulates multiple membrane proteins (including FGFR1, IGFR1, and multiple EGFR family members) in a Ubiquitin-dependent internalization and lysosomal degradation process. NEDD4 also plays a role in facilitating the sequestration of alpha-synuclein to cellular endosomes. This recombinant protein contains an N-terminal His6 tag and amino acids 570-1319 (UniProt P46934).

Product Information

Quantity:	100 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 100 mM NaCl, 5 mM DTT, 1 mM EDTA
MW:	88 kDa
Purity:	≥ 95% by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue Stain.

Use & Storage

Use:	Recombinant Human NEDD 4 is a Ubiquitin Ligase (E3) that functions downstream of a Ubiquitin-activating (E1) enzyme and a Ubiquitin-conjugating (E2) enzyme to conjugate Ubiquitin to substrate proteins. Reaction conditions will need to be optimized for each specific application.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

- References:**
- Harvey K.F. & Kumar S (1999) Trends Cell Biol. **9**: 166
 - Maspero E., *et al.* (2013) Nat. Struct. Mol. Biol. **20**: 696
 - Scheffner M. & Kumar S. (2014) Biochim. Biophys. Acta. **1843**: 61
 - Sugeno N., *et al.* (2014) J. Biol. Chem. **289**: 18137
 - Yang B. & Kumar S (2010) Cell Death Differ. **17**: 68

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840 Memorial Drive, Cambridge, MA 02139 Phone: 617-576-2210 FAX: 617-492-3565
www.bostonbiochem.com

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