

Recombinant NEDD4L protein

Catalog No: 82175, 82775

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Source: Human

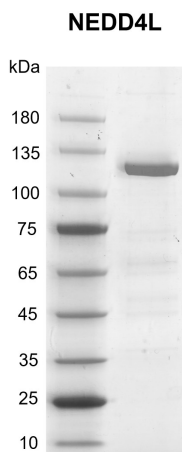
Buffer Contents: Recombinant NEDD4L protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

Background: Recombinant human **NEDD4L** (neural precursor cell expressed developmentally downregulated 4-like), also known by its gene symbol **NEDD4L** and alternative names including NEDD4-2, hNEDD4-2, and RSP5, is a HECT domain-containing E3 ubiquitin-protein ligase that plays a critical role in regulating cell surface expression of various ion channels and transporters by catalyzing ubiquitination and subsequent endocytosis of its target proteins. This recombinant form, typically produced in expression systems such as *E. coli* or insect cells, retains the key biochemical properties of the native protein, including its C2 domain for membrane targeting, multiple WW domains that mediate substrate recognition by binding to PY motifs, and the catalytic HECT domain responsible for ubiquitin transfer. **NEDD4L** functions as a key regulator of blood pressure by controlling the cell surface expression of the epithelial sodium channel (ENaC) in the kidney and also targets other substrates including Smad proteins to modulate TGF-β signaling, voltage-gated ion channels, and multiple membrane transporters, thereby influencing diverse physiological processes ranging from neuronal function to immune regulation.

Protein Details: Recombinant NEDD4L protein was expressed in baculovirus expression system as the full length protein (accession number NP_056092.2) with a N-terminal FLAG tag. The molecular weight of the protein is 111.3 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

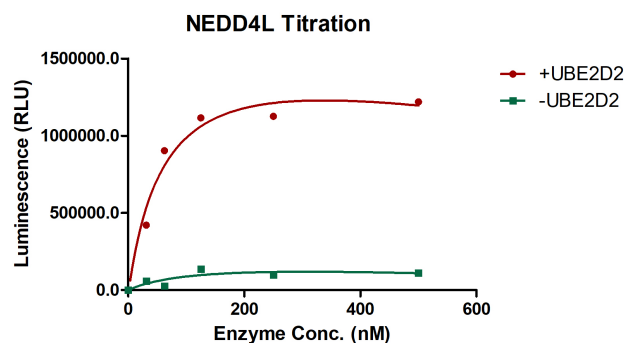


Recombinant NEDD4L protein gel

4-20% SDS-PAGE gel

MW: 111.3 kDa

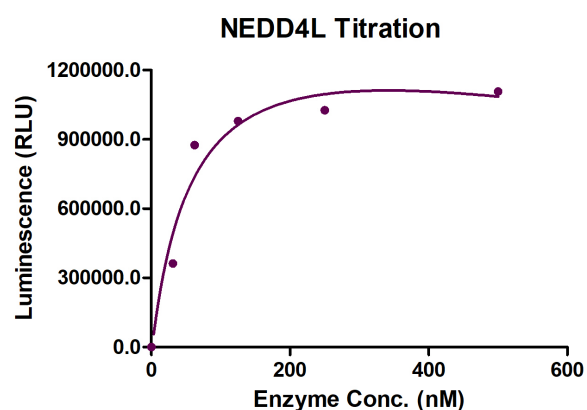
Purity: >95%



AMP-Glo assay for NEDD4L activity

25 μ M ubiquitin, 50 nM UBA1, 500 nM UBE2D2 and 50 μ M ATP were incubated with different concentrations of NEDD4L in 10 μ l reaction system containing 40 mM Tris-HCl pH 7.4, 20 mM MgCl₂, 0.5 mM DTT, 0.1 mg/ml BSA at 30°C for 30 min. 10 μ l of AMP-Glo

Reagent I was added to the reaction and incubated for 1 hour at room temperature. Then 20 μ l of AMP-Glo Detection Solution was added and luminescence were read after another 30 min incubation.



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