

NAE1/UBA3 Complex Recombinant Protein | NAE1/UBA3 recombinant protein

NAE1/UBA3 Complex, Active

CATALOG # AAA74077	HOST Sf9 insect cells.
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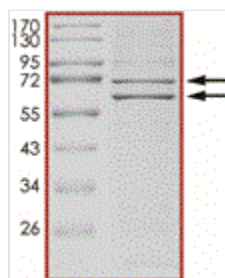
PRODUCT SYNONYMS

NAE1/UBA3 Complex; Active; NAE1 -APPBP1 UBA3 -UBE1C; UBA3; hUBA3; NAE1/UBA3 recombinant protein

PRODUCT SPECIFICATIONS

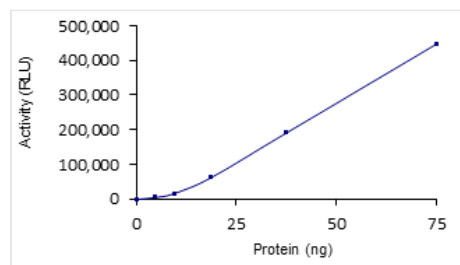
Host	Sf9 insect cells.
Form/Format	Recombinant protein complex is a combination of the following 2 buffer systems, adjusted to optimize the NAE1 (phosphate buffer system) and UBA3 (tris buffer system) proportions: 50mM sodium phosphate, pH7.5, 300mM NaCl, 150mM imidazole, 0.25mM DTT, 25
Tag	His/GST
Species	Human
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

IMAGES



SDS-PAGE

Purity: The purity of NAE1/UBA3 was determined to be >70% by densitometry. NAE1 approx. MW 65 kDa. UBA3 approx. MW 73 kDa.



Activity

Specific Activity: The specific activity of NAE1/UBA3 was determined to be 6.4 nmol/min/mg as per activity assay protocol.

ADDITIONAL INFORMATION

Related Product Information for NAE1/UBA3 recombinant protein	Recombinant human NAE1 (2-end) and full-length human UBA3 were expressed by baculovirus in Sf9 insect cells. NAE1 used an N-terminal His tag, and the gene accession number is NM_003905. UBA3 used an N-terminal GST tag, and the gene accession number is BC022853. NAE1/UBA3 is a heterodimeric E1 (Ub-activating)-like complex that activates NEDD8. In the presence of ATP, NAE1/UBA3 adenylates and activates NEDD8 yielding NEDD8-UBA3 thioester and free AMP. Activated NEDD8 is then transferred to UBE2M or UBE2F through transthiolation reaction. Finally, substrate specific-E3 ligase, such as RBX1/2 or DCN1, transfers NEDD8 from UBE2M or UBE2F to a lysine residue in its target protein (1,2). NEDD8 pathway plays an important role in cell cycle progression and survival (3).
Product Categories/Family for NAE1/UBA3 recombinant protein	Ubiquitin Enzymes; Cell Cycle

References	1. Zhou, L. et al: Neddylation: a novel modulator of the tumor microenvironment. Mol Cancer. 18: 77, 2019. 2. Gong, L. et al: Identification of the activating and conjugating enzymes of the NEDD8 conjugation pathway. J Biol Chem. 23 (274):12036-42, 1999. 3. Soucy, T.A. et al: The NEDD8 conjugation pathway and its relevance in cancer biology and therapy. Genes Cancer. 1: 708-716, 2010.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	18605782
NCBI GeneID	9039
NCBI Accession #	BC022853
NCBI GenBank Nucleotide #	NM_003905
Molecular Weight	50,072 Da
NCBI Official Full Name	Homo sapiens ubiquitin-like modifier activating enzyme 3, mRNA
NCBI Official Synonym Full Names	ubiquitin-like modifier activating enzyme 3
NCBI Official Symbol	UBA3
NCBI Official Synonym Symbols	NAE2; UBE1C; hUBA3
NCBI Protein Information	NEDD8-activating enzyme E1 catalytic subunit; NEDD8-activating enzyme E1 subunit 2; NEDD8-activating enzyme E1C; Nedd8-activating enzyme hUba3; UBA3, ubiquitin-activating enzyme E1 homolog; ubiquitin-activating enzyme 3; ubiquitin-activating enzyme E1C (U

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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 Online datasheet: <https://stage.aaabiotech.com/nae1/uba3-complex-recombinant-protein-sf9-insect-cells/74077>