
Product Data Sheet

Product Name: UBE2M Human
 Cat. No.: GP22364
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	NEDD8-conjugating enzyme Ubc12; Ubiquitin-conjugating enzyme E2 M; NEDD8 protein ligase; NEDD8 carrier protein; UBC12; hUbc12; UBC-RS2.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMIKLFS LKQQKKEEES AGGTKGSSKK ASAAQLRIQK DINELNLPKT CDISFSDPDD LLNFKLVICP DEGFYKSGKF VFSFKVGQGY PHDPPKVKCE TMVYHPNIDL EGNVCLNILR EDWKPVLTLN SIIYGLQYLF LEPNPEDPLN KEAAEVLQNN RRLFEQNVQR SMRGGYIGST YFERCLK		
Formulation	The UBE2M solution (1mg/1ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.2M NaCl, 1mM DTT and 20% glycerol.		

Introduction

UbcH12 is functional in in vitro NEDDylation reactions. It has been shown to form a thioester linkage with NEDD8 in the presence of the NEDD8 activating enzyme complex Uba3/APP-BP1. APP-BP1 binds to the amyloid precursor protein (APP) carboxy terminal domain and is important in conjunction with Uba3 and UbcH12 in driving cells through the S to M checkpoint. It was demonstrated to be the E2 responsible for the NEDDylation of the Cul-1 component of the SCF (?-TRCP) complex which is important as the E3-ligase in the ubiquitinylation of I?B?. NEDDylation of Cul-1 is essential for conjugation and processing of NF-?B p105 by SCF (?-TRCP) following phosphorylation of the complex. A dominant negative form of UbcH12, previously demonstrated to sequester NEDD8 and inhibit its conjugation, inhibits both conjugation and processing of p105, which is alleviated by wild-type UbcH12.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

UBE2M Human Recombinant produced E. coli is a single polypeptide chain containing 207 amino acids (1-183) and having a molecular mass of 23.5kDa. UBE2M is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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