

Recombinant UBE2K protein

Catalog No: 81498, 81598

Expressed In: *E. coli*

Quantity: 100, 1000 µg

Source: Human

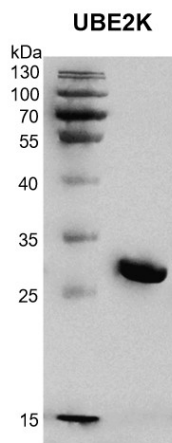
Buffer Contents: Recombinant UBE2K protein is supplied in 25 mM Tris 8.0, 300mM NaCl, 20% glycerol, 0.5 mM TCEP.

Background: **UBE2K (Ubiquitin-conjugating enzyme E2 K)** also known as E2-25K, HIP2, HYPG, LIG and UBC1. **UBE2K** is a member of the E2 ubiquitin-conjugating enzyme family which is required for post-replicative DNA damage repair and plays an important role in various cellular processes. **UBE2K** can accept ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. In vitro, in the presence or in the absence of BRCA1-BARD1 E3 ubiquitin protein ligase complex, catalyzes the synthesis of 'Lys-48'-linked polyubiquitin chains. Does not transfer ubiquitin directly to but elongates monoubiquitinated substrate protein. Mediates the selective degradation of short-lived and abnormal proteins, such as the endoplasmic reticulum-associated degradation (ERAD) of misfolded luminal proteins. Ubiquitinates huntingtin. May mediate foam cell formation by the suppression of apoptosis of lipid-bearing macrophages through ubiquitination and subsequent degradation of p53/TP53. Proposed to be involved in ubiquitination and proteolytic processing of NF-kappa-B; in vitro supports ubiquitination of NFKB1. In case of infection by cytomegaloviruses may be involved in the US11-dependent degradation of MHC class I heavy chains following their export from the ER to the cytosol. In case of viral infections may be involved in the HPV E7 protein-dependent degradation of RB1.

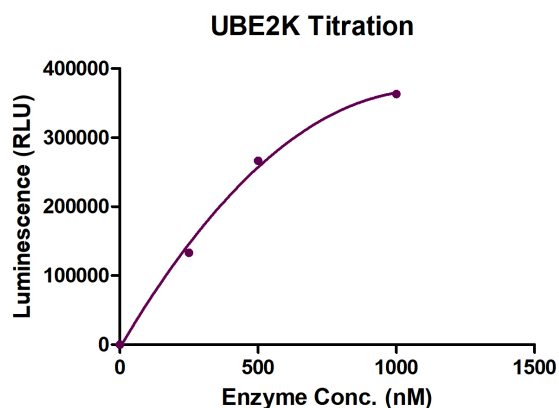
Protein Details: Recombinant UBE2K protein that includes full length of human UBE2K protein (accession number NP_005330.1) was expressed in *E. coli* and contains an N-terminal His tag with a molecular weight of 24.57 kDa. The purity of the protein is ≥ 95% by SDS-PAGE.

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 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 UBE2K protein gel.
 12.5% SDS-PAGE Coomassie blue
 MW: 24.57 kDa
 Purity: >95%



AMP-Glo assay for UBE2K activity

7.9 μ M ubiquitin, 63 nM UBA1 and 25 μ M ATP were incubated with different concentrations of UBE2K 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 37°C for 1 hour. 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.