UB2V1 Protein, Human (Sf9, His, Strep)

Cat. No.:	HY-P701501
Synonyms:	UBE2V1; Ubiquitin-conjugating enzyme E2 variant 1; UEV-1; CROC-1; TRAF6-regulated IKK activator 1 beta Uev1A
Species:	Human
Source:	Sf9 insect cells
Accession:	Q13404 (A2-N147)
Gene ID:	387522
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	The UBE2V1 protein, on its own, lacks ubiquitin ligase activity. However, when forming a heterodimer with UBE2N, it catalyzes the synthesis of non-canonical poly-ubiquitin chains linked through Lys-63. This type of poly-ubiquitination activates IKK and does not involve protein degradation by the proteasome. UBE2V1 plays a crucial role in the activation of NF-kappa-B mediated by IL1B, TNF, TRAF6, and TRAF2, contributing to the transcriptional activation of target genes. Additionally, it participates in cell cycle progression, differentiation, and the error-free DNA repair pathway, enhancing cell survival after DNA damage. Furthermore, UBE2V1 promotes TRIM5 capsid-specific restriction activity, collaborating with UBE2N to generate 'Lys-63'-linked polyubiquitin chains that activate the MAP3K7/TAK1 complex, leading to the induction of NF-kappa-B and MAPK-responsive inflammatory genes. Together with RNF135 and UBE2N, UBE2V1 catalyzes viral RNA-dependent 'Lys-63'-linked polyubiquitination of RIGI, activating the downstream signaling pathway for interferon beta production. In association with TRAF3IP2 E3 ubiquitin ligase, UBE2V1-UBE2N mediates 'Lys-63'-linked polyubiquitination of TRAF6 in the IL17A-mediated signaling pathway. It forms a heterodimer with UBE2N and interacts with various proteins, including STUB1 and TRAF6, contributing to diverse cellular processes and signaling pathways.

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

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