

# **Product** Data Sheet

# **RBCK1 Protein, Human (His)**

**Cat. No.:** HY-P702077

Synonyms: RBCK1; RanBP-type and C3HC4-type zinc finger-containing protein 1; HBV-associated factor 4;

Heme-oxidized IRP2 ubiquitin ligase 1; HOIL-1; Hepatitis B virus X-associated protein 4; RING finger protein 54; RING-type E3 ubiquitin transferase HOIL-1; Ubiquitin-conjugating enzyme 7-

interacting protein 3

Species: Human
Source: E. coli

Accession: Q9BYM8 (D2-H510)

Gene ID: /

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

RBCK1 Protein functions as an E3 ubiquitin-protein ligase, receiving ubiquitin from specific E2 enzymes, including UBE2L3/UBCM4, and transferring it to substrates. It acts as an E3 ligase for oxidized IREB2, requiring heme and oxygen for IREB2 ubiquitination. RBCK1 promotes the ubiquitination and proteasomal degradation of TAB2 and IRF3. As part of the LUBAC complex, RBCK1 catalyzes the conjugation of linear polyubiquitin chains to substrates, crucial for NF-kappa-B activation and inflammation regulation. The LUBAC complex is recruited to TNF-R1 signaling complex components, contributing to complex stability and preventing TNF-induced cell death. RBCK1, in conjunction with OTULIN, regulates canonical Wnt signaling during angiogenesis and binds polyubiquitin of various linkage types. Additionally, the LUBAC complex plays a role in innate immunity by forming a ubiquitin coat around bacteria invading the cytosol, acting as an 'eatme' signal for xenophagy and promoting NF-kappa-B activation.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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