

## UBE2A Protein, Human (GST-His)

<b>Cat. No.:</b>	HY-P71397
<b>Synonyms:</b>	Ubiquitin-Conjugating Enzyme E2 A; RAD6 Homolog A; HR6A; hHR6A; Ubiquitin Carrier Protein A; Ubiquitin-Protein Ligase A; UBE2A; RAD6A
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P49459-1 (M1-C152)
<b>Gene ID:</b>	7319
<b>Molecular Weight:</b>	Approximately 52.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>M S T P A R R R L M    R D F K R L Q E D P    P A G V S G A P S E    N N I M V W N A V I</p> <p>F G P E G T P F E D    G T F K L T I E F T    E E Y P N K P P T V    R F V S K M F H P N</p> <p>V Y A D G S I C L D    I L Q N R W S P T Y    D V S S I L T S I Q    S L L D E P N P N S</p> <p>P A N S Q A A Q L Y    Q E N K R E Y E K R    V S A I V E Q S W R    D C</p>
<b>Biological Activity</b>	E2-ubiquitin conjugation was detected by whether the DTT-sensitive thioester linkage can form or not.
<b>Appearance</b>	Solution
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 50 mM HEPES, 150 mM NaCl, 2 mM DTT, 10% Glycerol, pH 7.5.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Shipping with dry ice

### DESCRIPTION

<b>Background</b>	<p>UBE2A, as an integral component of the ubiquitin-proteasome system, serves as a conduit for ubiquitin transfer from the E1 complex to target proteins, catalyzing their covalent attachment. Collaborating with the E3 enzyme BRE1 (RNF20 and/or RNF40), UBE2A plays a pivotal role in transcriptional regulation by orchestrating the monoubiquitination of histone H2B at 'Lys-120,' resulting in the formation of H2BK120ub1. This modification serves as a distinctive mark for epigenetic transcriptional activation, RNA polymerase II elongation, telomeric silencing, and is essential for the subsequent formation of H3K4me and H3K79me. In addition to its role in histone ubiquitination, UBE2A exhibits catalytic activity in vitro, mediating both 'Lys-11' and 'Lys-48'-linked polyubiquitination. Moreover, UBE2A is indispensable for the postreplication</p>
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repair of UV-damaged DNA, highlighting its multifaceted involvement in fundamental cellular processes.

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

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