

# Recombinant Human UBE2A / HHR6A



Catalog Number: 12726-H07E

## General Information

### Gene Name Synonym:

HHR6A, RAD6A, UBC2

### Protein Construction:

A DNA sequence encoding the mature form of human UBE2A (P49459) (Met 1-Cys 152 ) was expressed, with a polyhistidine tag at the N-terminus.

**Source:** Human

**Expression Host:** *E. Coli*

## QC Testing

**Purity:** > 80 % as determined by SDS-PAGE.

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met 1

### Molecular Mass:

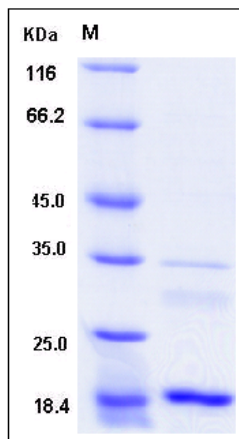
The recombinant human UBE2A consisting of 167 amino acids and has a calculated molecular mass of 19.2KDa. It migrates as an approximately 18.5KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from 0.2µm filtered solution of PBS, 20%glycerol, pH7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## SDS-PAGE:



## Usage Guide

### Storage:

Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

Ubiquitin-conjugating enzyme E2 A( also known as hHR6A or UBE2A), encoded by human DNA repair genes HHR6A, belongs to the ubiquitin-conjugating enzymes (E2 enzymes) family and is likely to be involved in postreplication repair and induced mutagenesis. hHR6A is described as a CDK2 substrate. hHR6A is phosphorylated in vitro by CDK-1 and CDK-2 on Ser120, a residue conserved in all hHR6A homologues, resulting in a 4-fold increase in its ubiquitin-conjugating activity. In vivo, hHR6A phosphorylation peaks during the G2/M phase of cell cycle transition, with a concomitant increase in histone H2B ubiquitylation. Mutation of Ser120 to threonine or alanine abolished hHR6A activity, while mutation to aspartate to mimic phosphorylated serine increased hHR6A activity 3-fold. A mutation of HHR6A is considered as the cause of a novel X-linked mental retardation (XLMR) syndrome that affects three males in a two-generation family.

### References

1. Nascimento RM, et al. (2006) Am J Hum Genet. 79(3):549-55.
2. Koken MH, et al. (1992) Genomics. 12(3):447-53.
3. Sarcevic B, et al. (2002) EMBO J. 21(8):2009-18.