

His₆-UBE2A

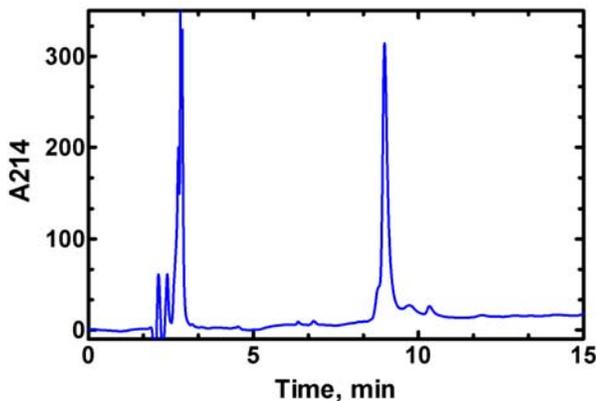
Cat. # UB226H

Background: UBE2A is a substrate for cyclin-dependent kinase 2 with phosphorylation of Ser120 dramatically increasing ubiquitin conjugating activity. During the cell cycle, peak phosphorylation of UBE2A coincides with peak ubiquitylation of histone H2B (1). Ubiquitylated H2B stimulates methylation of lysine 4 of histone H3 (2). UBE2A and B are also involved in DNA lesion repair via recruitment of alternative polymerases to DNA (3). UBE2A has been implicated in regulating the ubiquitination of aggregating proteins along with UBE2K and UBE2D2.

Application: Ubiquitin ligation reactions

Product Information

Organism	Human; Accession No. P49459
Source	Recombinant, <i>E. coli</i>
Purity:	≥ 90% by RP-HPLC
Molecular Weight:	18,309.5 Da
Tag	His ₆
Physical State:	Liquid, 50 mM Tris, pH 7.5; 150 mM NaCl; 10 mM DTT; 10% glycerol
Quantity:	20 or 75 µL of a 40 µM solution (0.8 and 3 nmoles, respectively)
Solubility:	>3 mg/mL
Storage:	-80° C. Avoid repeated freeze/thaw cycles



RP-HPLC

References

1. Sarcevic, B., Mawson, A., Baker, R.T., and Sutherland, R.L. Regulation of the ubiquitin-conjugating enzyme hHR6A by CDK-mediated phosphorylation. *EMBO J.* **21**,2009-2018 (2002).
2. Kim, J., Guermah, M., McGinty, R.K., Lee, J.S., Tang, Z., Milne, T.A., Shilatifard, A., Muir, T.W., and Roeder, R.G. RAD6-mediated transcription-coupled H2B ubiquitylation directly stimulates H3K4 methylation in human cells. *Cell* **137**,459-471 (2009).
3. Masuda, Y., Piao, J., and Kamiya, K. DNA replication-coupled PCNA mono-ubiquitination and polymerase switching in a human in vitro system. *J Mol Biol* **396**,487-500 (2010)

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