

MATERIAL DATA SHEET

His₆-HR6A/UBE2A, *human recombinant*

Cat. # E2-612

The human HR6A and HR6B proteins share about 95% amino acid sequence identity with each other and about 70% with yeast counterparts, but notably lack the acidic C-terminal domain found in *S. cerevisiae* proteins. The RAD6 pathway is essential to post-replication repair of DNA and damage-induced mutagenesis in eukaryotic cells. hHR6 protein expression is cell cycle regulated and function with RAD5 and RAD18 RING-finger proteins. The human proteins function similar to the yeast homologs, and may have additional roles in chromatin remodeling and spermatogenesis. Residue Ser¹²⁰ is an important regulatory site in hHR6A, being phosphorylated *in vitro* by CDK1/2on which increases ubiquitin conjugating activity. A nonsense mutation in hHR6A has been linked to a novel X-linked mental retardation syndrome (XMLR). This protein has an N-terminal His₆-tag, Accession NP_003327.

Product Information

Quantity:	X µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.8, 50 mM NaCl, 10% glycerol, 1 mM DTT. Concentration will vary with Lot#
MW:	20 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage

Use:	Typical enzyme concentration to support conjugation <i>in vitro</i> is 100 nM-1 µM depending on conditions.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Kao C-F., <i>et al.</i> (2004) <i>Genes & Dev.</i> 18 :184-195
	Koken M.H., <i>et al.</i> (1991) <i>Proc. Natl. Acad. Sci.</i> 88 :8865-8869
	Koken M.H., <i>et al.</i> (1996) <i>Dev. Biol.</i> 173 :119-132
	Kunapuli P., <i>et al.</i> (2003) <i>Oncogene.</i> 22 :3417-3423
	Lyakhovich A., <i>et al.</i> (2003) <i>Mol. Cell. Biol.</i> 37 :9784-9792
	Nascimento R.M., <i>et al.</i> (2006) <i>Am. J. Hum. Genet.</i> 23 :2463-2475
	Madura K., <i>et al.</i> (1990) <i>Nuc. Acid. Res.</i> 18 :771-778
	Sarcevic B., <i>et al.</i> (2002) <i>EMBO J.</i> 21 :2009-2018
	Ulrich H.D., <i>et al.</i> (2000) <i>EMBO J.</i> 19 :3388-3397
	Xin H., <i>et al.</i> (2000) <i>Nuc. Acid. Res.</i> 28 :2847-2854

For Laboratory Research Use Only, Not For Use in Humans

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-241-7072 FAX: 617-492-3565
www.bostonbiochem.com

The contents of this datasheet (unless otherwise noted) are Copyright © 2008 Boston Biochem, Inc. All rights reserved. Duplication in whole or in part is strictly prohibited without the express written consent of Boston Biochem, Inc. "Boston Biochem" is a Trademark of Boston Biochem, Inc., 840 Memorial Drive, Cambridge, MA 02139.