

MATERIAL DATA SHEET

Ubiquitin, *plant recombinant*

Cat. # U-100At

Highly purified ubiquitin free of glycine and buffer salts which can interfere with chemical and *in vitro* reactions. Ubiquitin is a 76 amino acid, highly conserved nuclear and cytoplasmic eukaryotic protein. It is covalently attached to substrate proteins by enzymes in the Ubiquitin-Proteasome Pathway (UPP). The major role of ubiquitination is to target cellular proteins for the ATP-dependent degradation by the 26S proteasome and proteasome-independent or regulatory events such as protein localization, activity and function. This protein sequence is for *A.thaliana* (P59263) and is exactly the same for barley, oat, soya bean and other plants.

Product Information

Quantity:	5 mg, lyophilized powder
MW:	8.6 kDa
Solubility:	Aqueous solutions up to 20 mg/ml
Purity:	> 95% by SDS-PAGE

Protein Sequences

<i>H.sapiens</i> Ub:	MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQRLIFAGKQLEDGRT LDYNIQKESTLHLVLRRLGG
<i>A.thaliana</i> Ub	MQIFVKTLTGKTITLEVESSDTIDNVKAKIQDKEGIPPDQRLIFAGKQLEDGRT LADYN IQKESTLHLV LRLRG

Use & Storage

Use:	Typical concentration to support <i>in vitro</i> conjugation is 500 µM to 1 mM depending on conditions
Storage:	Lyophilized powder at 4°C. Solubilized stock solution at -20°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Burke T.J., <i>et al.</i> (1988) <i>Mol. Gen. Genet.</i> 213 :435-443 Ciechanover A., <i>et al.</i> (1980) <i>J. Biol. Chem.</i> 255 : 7525-7528 Coux O., <i>et al.</i> (1996) <i>Ann. Rev. Biochem.</i> 65 : 801-847 Glickman M.H. and Ciechanover A. (2002) <i>Physiol. Rev.</i> 82 :373-428 Hershko A. and Ciechanover A. (1992) <i>Ann. Rev. Biochem.</i> 61 : 761-807 Schwartz A.L and Ciechanover A. (1999) <i>Ann. Rev. Med.</i> 50 : 57-74. Smalle J. and Vierstra. R.D. (2004) <i>Ann.Rev.Plant.Biol.</i> 55 :555-590 Wilkinson K.D. and Audhya T.K. (1981) <i>J. Biol. Chem.</i> 256 : 9235-9241
--------------------	---

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