

MATERIAL DATA SHEET

Ubiquitin, yeast recombinant

Cat. # U-100Sc

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 *S.cerevisiae* (P61864) and is exactly the same for *S.pombe*.

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	MQIFVKTLTGKTTITLEVEPSDTIENVKAKIQDKEGIPPDQQLIFAGKQLEDGRT LSDYNIQKESTLHLVLRLLRGG
<i>S.cerevisiae</i> Ub	MQIFVKTLTGKTTITLEVESSDTIDNVKSKIQDKEGIPPDQQLIFAGKQLEDGRT LSDYN IQKESTLHLVLRLLRGG

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:	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 Oezkaynak E., <i>et al.</i> (1984) <i>Nature</i> 312 :663-666 Oezkaynak E., <i>et al.</i> (1987) <i>EMBO J.</i> 6 :1429-1439 Schwartz A.L and Ciechanover A. (1999) <i>Ann. Rev. Med.</i> 50 : 57-74. Wilkinson K.D. and Audhya T.K. (1981) <i>J. Biol. Chem.</i> 256 : 9235-9241
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