

**MATERIAL DATA SHEET****Biotin-Lysozyme Conjugation Substrate, *hen egg white*  
Cat. # SP-100**

Lysozyme has been used extensively as a substrate to study the ubiquitin-dependent proteolytic pathway *in vitro*. This protein is an N-end rule substrate, since the recognition of protein requires the binding of an E3 ligase to the N-terminal lysine residue. Ubiquitin-lysozyme conjugates can be formed in the presence of ATP, ubiquitin and the appropriate conjugation enzyme source. This substrate protein can be used as a positive control with crude fractions (F-340, F-360, F-370, F-372) and conjugation kits (K-915, K-930, K-935, K960). Additionally, this lysozyme is labeled with biotin for the sensitive detection with avidin affinity reagents, but has all available lysines present for the efficient conjugation to ubiquitin.

**Product Information**

<b>Quantity:</b>	50 µg, lyophilized powder
<b>Solubility:</b>	Soluble up to 2 mg/ml in 50 mM Hepes pH 8, 100 mM NaCl.
<b>MW:</b>	14 kDa
<b>Purity:</b>	> 95% by SDS-PAGE

**Use & Storage**

<b>Use:</b>	Typical concentration to support conjugation <i>in vitro</i> is 5 - 20 µM (70-280 µg/ml) depending on conditions.
<b>Storage:</b>	Store at -80°C once reconstituted. Avoid multiple freeze/ thaw cycles.

**Literature**

<b>References:</b>	Hershko A., <i>et al.</i> (1980) <u>Proc. Natl. Acad. Sci.</u> <b>77</b> :1783-1786 Hough R. and Reichsteiner M. <i>et al.</i> (1986) <u>J. Biol. Chem.</u> <b>261</b> :2391-2399 Ganoth D., <i>et al.</i> (1988) <u>J. Biol. Chem.</u> <b>263</b> :12412-12419 Gonda D.K., <i>et al.</i> (1989) <u>J. Biol. Chem.</u> <b>264</b> :16700-16712 Reiss Y., <i>et al.</i> (1988) <u>J. Biol. Chem.</u> <b>263</b> :2693-2698
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