Lot# XXXXX

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MATERIAL DATA SHEET

SUMO E1 (SAE1/UBA2), *S. cerevisiae*
Cat. # E-311

Conjugation of the ubiquitin-like modifier SUMO (Sentrin) requires the activities of the heterodimeric E1 (Aos1/Uba2) and the UbcH9 E2 enzyme. The dimeric activating enzyme utilizes ATP to adenylate the C-terminal glycine residue of SUMO-1 (also SUMO-2 and SUMO-3), forming a high-energy thiolester bond with the cysteine residue of Uba2 and the release of AMP and PPi. The second step is the trans-esterification reaction whereby SUMO-1 is transferred to Cys^{93} of UbcH9.

Product Information	
Quantity:	25 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 150 mM NaCl. Actual concentration will vary with specific Lot #.
Purity:	> 90% by SDS-PAGE
MW:	114 kDa

Use & Storage	
Use:	Typical enzyme concentration to support conjugation *in vitro* is 50-200 nM depending on conditions.
Storage:	Store at –80°C. Avoid multiple freeze/thaw cycles.

Literature

References:

Dohmen R.J., *et al.* (1995) J. Biol. Chem. **270**:18099-18109
Gong L., *et al.* (1999) FEBS Lett. **448**:185-189
Johnson E.S., *et al.* (1997) EMBO J. **16**:5509-5519
Okuma T., *et al.* (1999) Biochem Biophys Res Commun. **254**:693698
Tatham M.H., *et al.* (2001) J. Biol. Chem. **276**:35368-35374

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