

# Ubiquitin Activating Enzyme (UBA1)

Cat. No. SBB-CE0011  
Lot. No. 163060011



# South Bay Bio

## UBA1

UBA1, the canonical Ubiquitin E1 activating enzyme is a 118kDa protein, which forms a homodimer in its active state. It activates Ubiquitin in an ATP-dependent mechanism where ATP is hydrolyzed to AMP and PPi, a Ubiquitin C-terminal adenylate intermediate is formed, then transferred to the E1's active site cysteine through a thioester bond. This thioester is then transferable to an E2 conjugating enzyme's active site cysteine. Working concentrations of this enzyme range from 10 to 100nM. This enzyme is produced recombinantly from insect cells.

## Product Information

**Quantity:** 50µg      **Molecular Weight:** 118 kDa

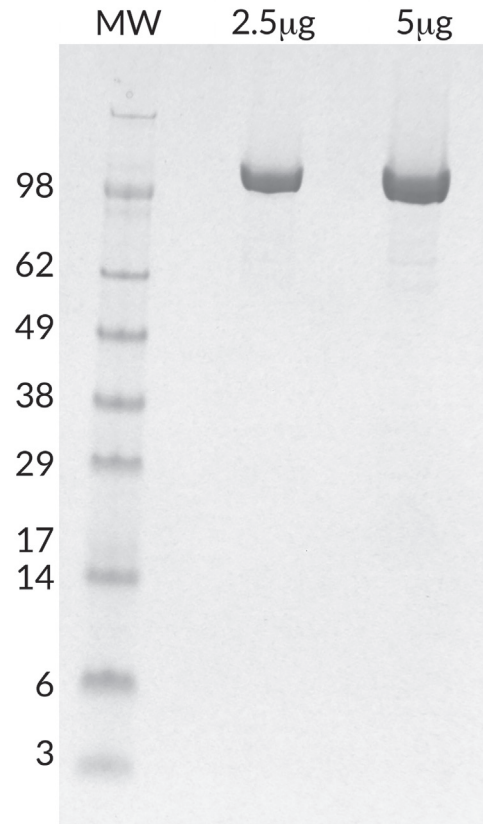
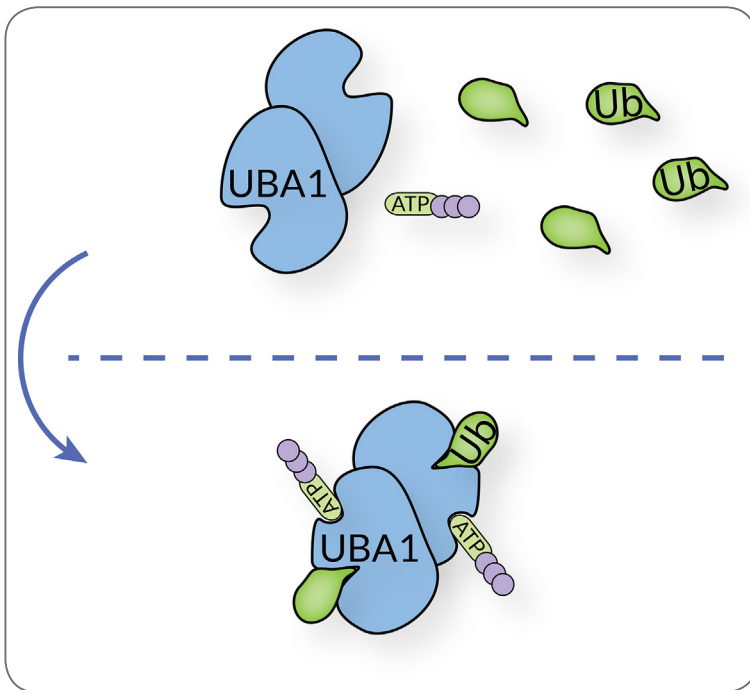
**Concentration:** 22 µM, 2.7 mg/mL

**Purity:** >95% by SDS-PAGE

**Storage Buffer:** 50 mM HEPES pH 7.5, 150 mM NaCl, 10% Glycerol, 2mM TCEP

**Storage:** -80C, Avoid multiple freeze / thaw

## Quality Control and Performance Data



**UBA1 SDS-PAGE.** From left to right, increasing amounts of UBA1 loaded onto a 4-20% SDS-PAGE gel, stained with Coomassie brilliant blue. Purity is > 95%.

**For Research Use Only, Not For Use In Humans.**

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## References

1) Hershko, A., Heller, H., Elias, S., and Ciechanover, A. 1983. Components of ubiquitin-protein ligase system. Resolution, affinity purification, and role in protein breakdown. *J. Biol. Chem.* 258: 8206-8214

2) Yang, Yili, et al. "Inhibitors of ubiquitin-activating enzyme (E1), a new class of potential cancer therapeutics." *Cancer research* 67.19 (2007): 9472-9481.

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4) Olsen, Shaun K., and Christopher D. Lima. "Structure of a ubiquitin E1-E2 complex: insights to E1-E2 thioester transfer." *Molecular cell* 49.5 (2013): 884-896.

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