

Ubiquitin Activating Enzyme (UBA1)

Cat. No. SSB-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 0.5 to 50nM. This enzyme is produced recombinantly from insect cells.

Product Information

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

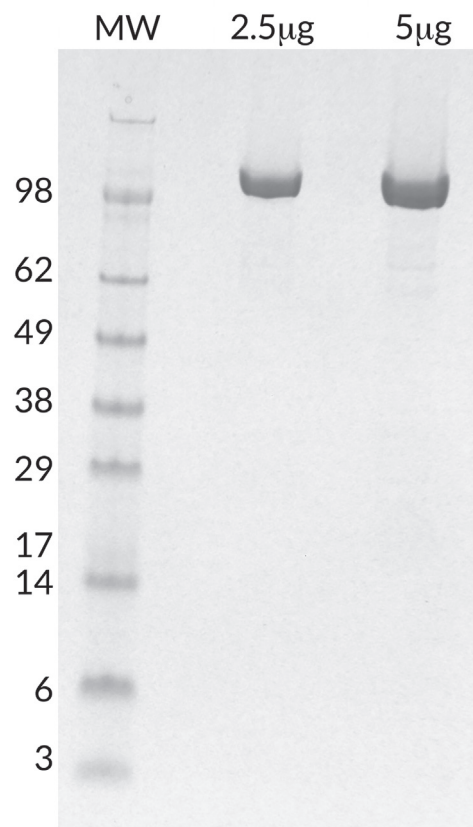
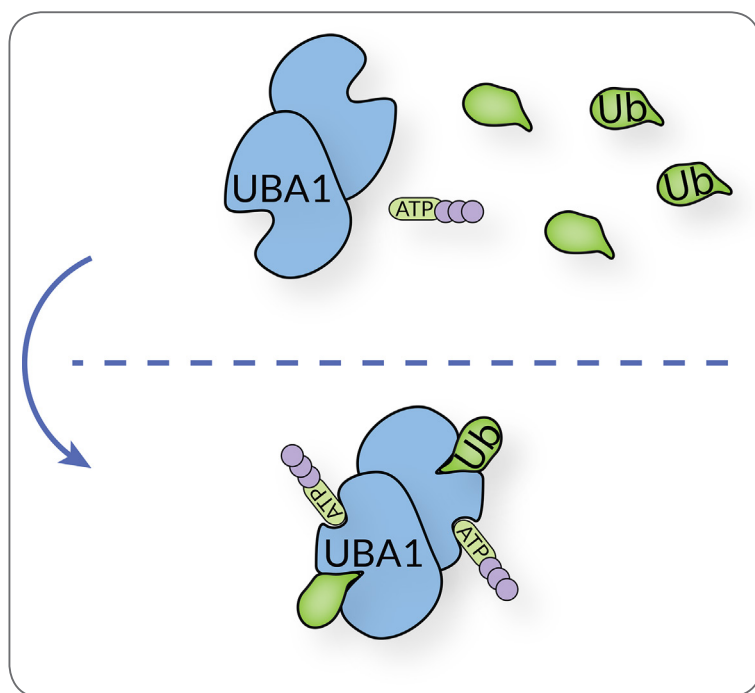
Concentration: 22 µM, 2.7 mg/mL

Purity: >95% by SDS-PAGE

Storage Buffer: 50 mM HEPES pH 7.5, 150 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%.

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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
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 - 3) Lee, Imsang, and Hermann Schindelin. "Structural insights into E1-catalyzed ubiquitin activation and transfer to conjugating enzymes." Cell 134.2 (2008): 268-278.
 - 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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