Product Information

Ubiquitin Activating Enzyme (E1), human recombinant, expressed in Sf21 insect cells

Catalog Number U5633
Storage Temperature –70 °C

Product Description
The ubiquitin proteolytic system plays an important role in a broad array of basic cellular processes. Among these are regulation of cell cycle, modulation of the immune and inflammatory responses, development and differentiation, and control of signal transduction pathways. These complex processes are controlled via specific degradation of a single or a subset of proteins. Degradation of a protein by the ubiquitin system involves two successive steps, conjugation with multiple moieties of ubiquitin and degradation of the ubiquitin tagged protein by the 26S proteasome.

Ubiquitin activating enzyme (E1) performs the initial step in the formation of the ubiquitin-protein isopeptide bond. E1 catalyzes the activation of the C-terminal carboxyl group of ubiquitin by forming a high energy thioester bond in an ATP-dependent manner. This activated ubiquitin is then transferred to a lysine of the target protein via the E2/E3 conjugation cascade. It is the critical step for the initiation of any in vitro conjugation reactions. A working concentration of 50–200 nM is recommended to support in vitro conjugation.

This recombinant, human ubiquitin activating enzyme (E1) product is a 110 kDa protein, isolated from baculoviral expression in Sf21 (Spodoptera frugiperda) insect cells. It is supplied as a solution in 50 mM HEPES, pH 8.0.

Purity: ≥95% (SDS-PAGE)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
This product ships on dry ice and storage at –70 °C is recommended. The product is stable through multiple freeze/thaw cycles.

References

TD,CS,DG,MAM 09/14-1