

Recombinant UBA1 protein

Catalog No: 31227

Expressed In: *E. coli*

Quantity: 10 µg

Concentration: 0.5 µg/µl

Source: Human

Buffer Contents: 10 µg of recombinant protein supplied at a concentration of 0.5 µg/µl in 20 mM Tris-HCl, pH 7.3, 100 mM KCl, 0.2 mM EDTA and 20% glycerol.

Background: UBA1, ubiquitin-like modifier activating enzyme 1 (also known as ubiquitin-activating enzyme E1 (UBE1), A1S9, A1S9T, GXP1 or SMAX2) is a protein involved in activating ubiquitin, which marks cellular proteins for degradation. Ubiquitination involves three classes of enzymes: E1s, ubiquitin-activating enzymes, E2s, ubiquitin-conjugating enzymes and E3s, ubiquitin-protein ligases. UBA1 is an E1 enzyme that activates ubiquitin by adenylating its C-terminal glycine residue with ATP to generate an ubiquitin-E1 thioester and free AMP. UBA1 may also function in DNA repair, as it is A1S9T and BN75 temperature sensitivity complementing. Mutations in UBA1 are associated with spinal muscular atrophy.

Protein Details: Recombinant UBA1 protein was expressed in *E. coli* as the full-length human protein (accession number CAA40296) with an N-terminal poly-histidine tag. The molecular weight of the protein is ~120 kDa.

Application Notes: Recombinant UBA1 protein is suitable for use in ubiquitination assays. A recommended starting point for the ubiquitination assay is 100 ng recombinant protein per reaction.

Storage and Guarantee: This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.