ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Human Ubiquitin Protein

Cat. # UBQ15-R-100 Recombinant Purified Human ubiquitin protein **SIZE**: 100 ug

FORM: Soln Lyophilized.

Ubiquitin, a small protein consisting of 76 amino acids, has been found in all eukaryotic cells studied. It is one of the most conserved proteins known. Two classes of ubiquitin genes are recognized. Class I is a polyubiquitin gene encoding a polyprotein of tandemly repeated ubiquitins. The class II genes are fusion products between a single ubiquitin gene and 1 of 2 other possible sequences, either 52 or 76 to 80 predominantly basic amino acids. Ubiquitin is required for ATP-dependent, nonlysosomal intracellular protein degradation, which eliminates most intracellular defective problems as well as normal proteins with a rapid turnover. Degradation involves covalent binding of ubiquitin to the protein to be degraded, through isopeptide bonds from the C-terminal glycine residue to the epsilon-amino groups of lysyl side chains. Presumably, the function of ubiquitin is to label the protein for disposal by intracellular proteases. The most abundant ubiquitin-protein conjugate, however, is ubiquitin-H2A, in which ubiquitin is bound to lys119 in histone H2A; this conjugate is not degraded. Since such ubiquitinated histones are present primarily in actively transcribed chromosomal regions, ubiquitin may play a role in regulation of gene expression.

Source of Antigen

Human ubiquitin was expressed in E. coli and N-terminal his-tagged protein and purified (>95%). It is supplied as 1 mg/ml in PBS or in powder form. Reconstitute powder in PBS/DMSO solution and store in suitable aliquots at -20oC. Do not freeze and thaw.

Recombinant His-tagged ubiquitin (**Cat #UBQ15-R-100**) is fully functional and it can be used for metal chelate affinity chromatography of ubiquinated molecules. It can also serve as a positive control for his-tagged antibodies.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (50-200 ng/lane and probe with appropriate antibodies.

ELISA: Control protien can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

General References: Baker RT (1987) Nucl Acid Res. 15, 443-463; Conway RC (2002) Science 296, 1254; Ecker DJ (1987) JBC 262, 14213; Finley D (1989) Nature 338, 394; Lowe J (1988) J. Pathol. 155; 9

*This product is for In vitro research use only.

Related material available from ADI

Recombinant Human Ubiquitin, Ubiquitin ligases

Bovine ubiquitin

UBQ15-R-100 70309A

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