

Product Specification Sheet

**Ubiquitin Antibodies**

Cat. # UBQ11-S	Rabbit Anti-Ubiquitin antiserum	<b>SIZE:</b> 100 ul
Cat. # UBQ11-C	Purified bovine ubiquitin protein WB +ve control	<b>SIZE:</b> 100 ul

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 and Antibodies

<b>Antigen</b>	Purified bovine ubiquitin protein (UBQ15-R)
<b>Ab Host/type</b>	Rabbit, Polyclonal unpurified antiserum (#UBQ11-S)
<b>2-Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>-ve control</b>	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Bovine ubiquitin protein for Western blot +ve control (**Cat # UBQ11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **UBQ11-C** for good visibility with antibody Cat # **UBQ11-S**. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **UBQ11-C** solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native

protein is required. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or heat repeatedly

**Form & Storage of Antibodies/Peptide Control**

**Antiserum (unpurified, undiluted)**

100 ul/vial solution lyophilized powder  
contains 0.05% sodium azide  
**Reconstitute powder** in 100 ul PBS

**Storage**

**Short-term:** unopened, undiluted liquid vials for less than a week at 4oC.

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

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

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

**Recommended Usage**

**Western Blotting** (1:1K-5K for antiserum).

**ELISA:** Control peptide 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).

**Histochemistry:** not tested.

**Specificity & Cross-reactivity**

Polyclonal Anti-bovine ubiquitin is expected to react with ubiquitin from most species due to extreme conservation of the ubiquity sequence. Antibody cross-reactivity in various species is not known. Purified ubiquitin protein WB positive control (# UBQ11-C) and the purified protein is available for various studies.

**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

UBQ11-S-C 80530A

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