

## Rabbit Ubiquitin Polyclonal Antibody | anti-UBC antibody

Ubiquitin Antibody (N-term)

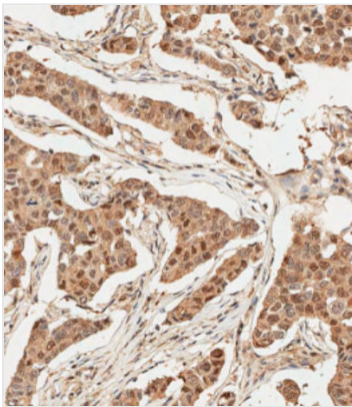
| CATALOG # | HOST   | REACTIVITY                                                                                                                         | APPLICATIONS                              |
|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| AAA28688  | Rabbit | Human \Human, Mouse, Rat<br>Predicted Reactivity: Bovine, Drosophila, Monkey, Pig, Sheep, Chicken, Horse, Hamster, Xenopus, Rabbit | Western Blot, ELISA, Immunohistochemistry |

### PRODUCT SYNONYMS

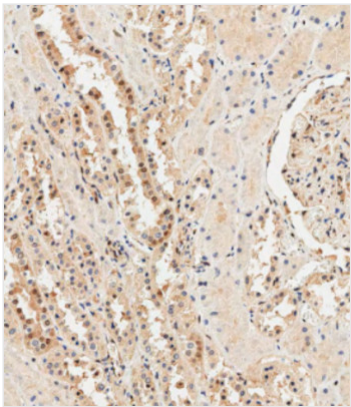
Ubiquitin; Polyclonal Antibody; Ubiquitin Antibody (N-term); Polyubiquitin-C; UBC; anti-UBC antibody

### PRODUCT SPECIFICATIONS

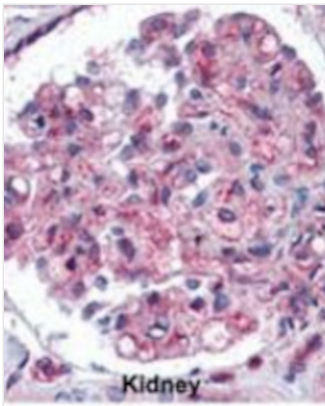
|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                          | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Reactivity                                    | Human \Human, Mouse, Rat<br>Predicted Reactivity: Bovine, Drosophila, Monkey, Pig, Sheep, Chicken, Horse, Hamster, Xenopus, Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Clonality                                     | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Isotype                                       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Specificity                                   | This Ubiquitin antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-32 amino acids from the N-terminal region of human Ubiquitin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Purity/Purification                           | This antibody is purified through a protein A column, followed by peptide affinity purification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form/Format                                   | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Sequence Positions                            | 1-32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sequence Length                               | 685                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Applicable Applications for anti-UBC antibody | WB (Western Blot), ELISA, IHC (Immunohistochemistry)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Application Notes                             | WB~~1:2000<br>IHC-P-Leica~~1:500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Function                                      | [Ubiquitin]: Exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11-linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell- cycle regulation; Lys-29-linked is involved in proteotoxic stress response and cell cycle; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling. |
| Cellular Location                             | [Ubiquitin]: Cytoplasm. Nucleus. Mitochondrion outer membrane; Peripheral membrane protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Preparation and Storage                       | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



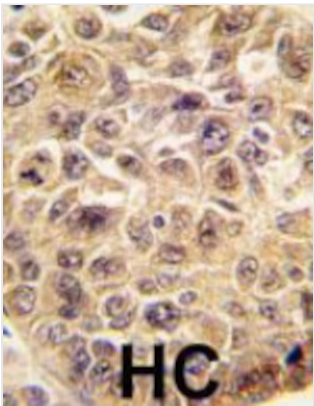
**IHC (Immunohistochemistry)**  
Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue using AAA28688 performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody



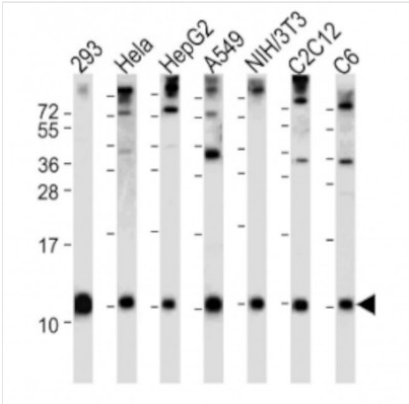
**IHC (Immunohistochemistry)**  
Immunohistochemical analysis of paraffin-embedded Human kidney tissue using AAA28688 performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



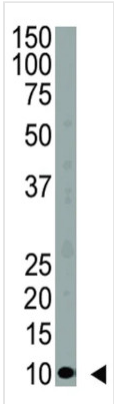
**IHC (Immunohistochemistry)**  
Formalin-fixed and paraffin-embedded human Kidney tissue reacted with Ubiquitin antibody (N-term) , which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



**IHC (Immunohistochemistry)**  
Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with Ubiquitin antibody (N-term) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



**ELISA**  
All lanes : Anti-Ubiquitin Antibody (N-term) at 1:2000 dilutionLane 1: 293 whole cell lysateLane 2: HeLa whole cell lysateLane 3: HepG2 whole cell lysateLane 4: A549 whole cell lysateLane 5: NIH/3T3 whole cell lysateLane 6: C2C12 whole cell lysateLane 7: C6 whole cell lysate Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 10 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



**WB (Western Blot)**  
Western blot analysis of anti-Ubiquitin Pab in HeLa cell lysate. Ubiquitin (Arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

ADDITIONAL INFORMATION

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-UBC antibody | This gene encodes ubiquitin, one of the most conserved proteins known. Ubiquitin is required for ATP-dependent, nonlysosomal intracellular protein degradation of abnormal proteins and normal proteins with a rapid turnover. Ubiquitin is covalently bound to proteins to be degraded, and presumably labels these proteins for degradation. Ubiquitin also binds to histone H2A in actively transcribed regions but does not cause histone H2A degradation, suggesting that ubiquitin is also involved in regulation of gene expression. This gene consists of three direct repeats of the ubiquitin coding sequence with no spacer sequence. Consequently, the protein is expressed as a polyubiquitin precursor with a final amino acid after the last repeat. Aberrant form of this protein has been noticed in patients with Alzheimer's and Down syndrome. |
| Product Categories/Family for anti-UBC antibody   | Cell biology; Neuroscience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| References                                        | Chan, Y.L., et al., Biochem. Biophys. Res. Commun. 215(2):682-690 (1995).<br>Cook, W.J., et al., J. Mol. Biol. 236(2):601-609 (1994).<br>Hubbard, M.J., et al., Biochim. Biophys. Acta 1200(2):191-196 (1994).<br>Wajih, N., et al., Protein Seq. Data Anal. 5(1):31-32 (1992).<br>Cook, W.J., et al., J. Biol. Chem. 267(23):16467-16471 (1992).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 601984520                                                                                      |
| NCBI GeneID                      | 7316                                                                                           |
| NCBI Accession #                 | NP_066289.3                                                                                    |
| NCBI GenBank Nucleotide #        | NM_021009.6                                                                                    |
| UniProt Accession #              | P0CG48; P02248; P02249; P02250; P62988; Q29120; Q6LBL4; Q6LDU5; Q8WYN8; Q91887; Q91888; Q9BWD6 |
| Molecular Weight                 | 77039                                                                                          |
| NCBI Official Full Name          | polyubiquitin-C                                                                                |
| NCBI Official Synonym Full Names | ubiquitin C                                                                                    |
| NCBI Official Symbol             | UBC                                                                                            |
| NCBI Official Synonym Symbols    | HMG20                                                                                          |
| NCBI Protein Information         | polyubiquitin-C                                                                                |
| UniProt Protein Name             | Polyubiquitin-C                                                                                |
| UniProt Gene Name                | UBC                                                                                            |
| UniProt Entry Name               | UBC_HUMAN                                                                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.