

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

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|-----------------------|--|----------------------|-----------|
| Product name | Ubiquitin, clone Ubi-1 | | |
| Catalog number | HM5009 | | |
| Lot number | - | Expiry date | - |
| Volume | 1 ml | Amount | 100 µg |
| Formulation | 0.2 µm filtered in PBS+0.1%BSA+0.02%NaN ₃ | Concentration | 100 µg/ml |
| Host Species | Mouse IgG1 | Conjugate | None |
| Endotoxin | N.A. | Purification | Protein G |
| Storage | 4°C | | |

Application notes

| | IHC-F | IHC-P | IF | FC | FS | IA | IP | W |
|-------------|-------|-------|----|----|----|----|----|---|
| Reference # | | | | | | | | |
| Yes | • | • | • | | | • | • | • |
| No | | | | | | | | |
| N.D. | | | | • | • | | | |

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10.

- IHC: monoclonal antibody Ubi-1 is useful for immunohistology after heat-induced retrieval on both frozen and paraffin embedded sections.
- W: For Western blotting it is recommended to use lysis buffer in 10 mM N-ethylmaleimide (e.g. Pierce #23030) to inhibit ubiquitin-conjugating enzymes. N-ethylmaleimide inactivates certain enzymes by blocking free sulfhydryls. After electrophoresis and transfer, pre-incubate transferred membranes in denaturing buffer (6 M guanidine-HCl, 20 mM Tris-HCl, 5 mM beta-mercaptoethanol, 1 mM PMSF (pH 7.5)) for 30-60 minutes at 4°C, followed by extensive PBS washing.

General Information

Description The monoclonal antibody Ubi-1 recognizes ubiquitin, both conjugated and unconjugated. Ubiquitin is a highly conserved globular 76 amino acid protein of about 8.5 kDa. It has an important role in the targeting of proteins for proteolytic degradation. Proteins to be degraded are covalently coupled to the C-terminus of ubiquitin by means of ubiquitin ligases. The ubiquitin itself is frequently also ubiquitinated, producing a polyubiquitin chain. The polyubiquitinated complex is then recognized by a complex of degradative enzymes which form the proteasome. Ubiquitin is also covalently attached to a variety of other pathological inclusions seen in human diseases which appear to be resistant to normal degradation. These inclusions include the neurofibrillary tangles of Alzheimer's disease and progressive supranuclear palsy, Pick bodies of Pick's disease, Lewy bodies of Parkinson's disease, Mallory bodies of alcoholic liver disease, Rosenthal fibers of Alexander's disease, and the inclusion bodies in inclusion myositis and oculopharyngeal muscular dystrophy. The ubiquitin molecule appears to be present in all eukaryotic cells and has an identical primary structure in all animals. Reactivity has been shown in human, bovine, chicken, Drosophila and C. elegans. Ubiquitin is present in the nucleus, cytoplasm and on cell surface membranes. The monoclonal antibody Ubi-1 was raised against purified bovine ubiquitin conjugated with glutaraldehyde to keyhole limpet hemocyanin.

- References**
1. Sternsdorf, T et al; PIC-1/SUMO-1-modified PML-retinoic acid receptor alpha mediates arsenic trioxide-induced apoptosis in acute promyelocytic leukemia. Mol Cell Biol 1999, 19: 5170
 2. Holbert, S et al; The Gln-Ala repeat transcriptional activator CA150 interacts with huntingtin: Neuropathologic and genetic evidence for a role in Huntington's disease pathogenesis. Proc Natl Acad Sci USA 2001, 98: 1811
 3. Mullally, J et al; Cyclopentenone prostaglandins of the J series inhibit the ubiquitin isopeptidase activity of the proteasome pathway. J Biol Chem 2001, 276: 30366

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Robbert Zwinkels

Date
16/03/2018

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.