

Human Ubiquitin+1 Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG Catalog Number: AF703

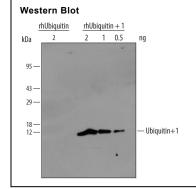
| DESCRIPTION | |
|--------------------|--|
| Species Reactivity | Human |
| Specificity | Detects recombinant human Ubiquitin+1. |
| Source | Polyclonal Rabbit IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | KLH-coupled human Ubiquitin+1 synthetic peptide CADLREDPDRQDHHPGSGAQ |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

| | Recommended Concentration | Sample |
|--------------|------------------------------|-----------|
| Western Blot | 1 μg/mL | See Below |

DATA



Detection of Human Ubiquitin+1 by Western Blot. Western blot shows samples of Recombinant Human Ubiquitin (Catalog # 701-UB) (2 ng) and Recombinant Human Ubiquitin+1 (Catalog # 703-UB) (2, 1, and 0.5 ng). PVDF membrane was probed with 1 µg/mL Rabbit Anti-Human Ubiquitin+1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF703) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band for Ubiquitin+1 was detected at approximately 13 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 4.

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| Reconstitution | Reconstitute at 0.2 mg/mL in sterile PBS. | | |
|----------------|---|--|--|
| Chinning | The product is chipped at ambient temperature. Upon receipt, store it immediately at the temperature recemp | | |

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Ubiquitin+1 has a carboxyl terminal amino acid sequence that differs from normal Ubiquitin. The different carboxyl terminal sequence appears to result from a frameshift in the Ubiquitin mRNA. The underlying mechanisms creating the mRNA frameshift are not clearly understood. The occurrence of the frameshift that generates Ubiquitin+1 is much more prevalent in patients with Alzheimers Disease or with Down Syndrome than in control individuals who are not afflicted with the disorders. The monoclonal anti-Ubiquitin+1 (Catalog # MAB703) and rabbit polyclonal anti-Ubiquitin+1 (Catalog # AF703) antibodies were raised against the Ubiquitin+1 carboxyl terminal sequence that differs from normal Ubiquitin and are therefore non-reactive with Ubiquitin. Monoclonal anti-Ubiquitin (Catalog # MAB701) detects both Ubiquitin and Ubiquitin+1 indicating that the epitope recognized by this antibody is contained in the portion of the proteins that are identical (1, 2).

References:

- 1. van Leeuwen, F.W. et al. (1998) Science 279:242.
- 2. van Leeuwen, F.W. et al. (1998) Trends Neurosci. 21:331.

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