

# Active Recombinant Human UBB Protein, R110-labeled

**Cat. No.** UBB-01H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human ubiquitin protein contains a C-terminal Rhodamine 110 was derived human E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>This gene encodes ubiquitin, one of the most conserved proteins known. Ubiquitin has a major role in targeting cellular proteins for degradation by the 26S proteasome. It is also involved in the maintenance of chromatin structure, the regulation of gene expression, and the stress response. Ubiquitin is synthesized as a precursor protein consisting of either polyubiquitin chains or a single ubiquitin moiety fused to an unrelated protein. 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. An aberrant form of this protein has been detected in patients with Alzheimer's disease and Down syndrome. Pseudogenes of this gene are located on chromosomes 1, 2, 13, and 17. Alternative splicing results in multiple transcript variants.</p> |
| <b>Bio-activity</b>     | <p>Recombinant Human Ubiquitin-Rhodamine110 (R110) is ideal for use in assays requiring fluorescent detection. Optimal fluorescence at pH 8.0 is monitored with an excitation wavelength of 485 nM and an emission wavelength of 535 nM. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human Ubiquitin-Rhodamine110 (R110) concentration of 0.1-1</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                       |                                                                                                                                                                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | μM.                                                                                                                                                                                                                                       |
| <b>Molecular Mass</b> | 8.9 kDa                                                                                                                                                                                                                                   |
| <b>Purity</b>         | > 95% by HPLC                                                                                                                                                                                                                             |
| <b>Applications</b>   | Enzyme Activity                                                                                                                                                                                                                           |
| <b>Storage</b>        | <p>Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <p>12 months from date of receipt, -70 centigrade as supplied.</p> <p>3 months, -70 centigrade under sterile conditions after opening.</p> |
| <b>Concentration</b>  | 2.23 mg/mL (250 μM)                                                                                                                                                                                                                       |
| <b>Storage Buffer</b> | DMSO                                                                                                                                                                                                                                      |
| <b>Shipping</b>       | The product is shipped with dry ice or equivalent.                                                                                                                                                                                        |

## GENE INFORMATION

|                        |                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | UBB ubiquitin B [ Homo sapiens (human) ]                                                         |
| <b>Official Symbol</b> | UBB                                                                                              |
| <b>Synonyms</b>        | UBB; ubiquitin B; HEL-S-50; polyubiquitin-B; epididymis secretory protein Li 50; polyubiquitin B |
| <b>Gene ID</b>         | 7314                                                                                             |
| <b>mRNA Refseq</b>     | NM_018955                                                                                        |

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|----------------|-----------|
| Protein Refseq | NP_061828 |
| MIM            | 191339    |
| UniProt ID     | P0CG47    |

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