

## Collectrin Protein, Mouse (Myc, His-SUMO)

|                          |                                                         |
|--------------------------|---------------------------------------------------------|
| <b>Cat. No.:</b>         | HY-P71629                                               |
| <b>Synonyms:</b>         | Cltrn; Nx17; Tmem27Collectrin; Transmembrane protein 27 |
| <b>Species:</b>          | Mouse                                                   |
| <b>Source:</b>           | E. coli                                                 |
| <b>Accession:</b>        | Q9ESG4 (15E-141P)                                       |
| <b>Gene ID:</b>          | 57394                                                   |
| <b>Molecular Weight:</b> | Approximately 34.5 kDa                                  |

### PROPERTIES

|                                |                                                                                                                                                                                                                                                                                                                                        |
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| <b>AA Sequence</b>             | <p>E L C H P D A E N A      F K V R L S I R A A      L G D K A Y V W D T      D Q E Y L F R A M V</p> <p>A F S M R K V P N R      E A T E I S H V L L      C N I T Q R V S F W      F V V T D P S N N Y</p> <p>T L P A A E V Q S A      I R K N R N R I N S      A F F L D D H T L E      F L K I P S T L A P</p> <p>P M E P S V P</p> |
| <b>Appearance</b>              | Lyophilized powder.                                                                                                                                                                                                                                                                                                                    |
| <b>Formulation</b>             | Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.                                                                                                                                                                                                                                              |
| <b>Endotoxin Level</b>         | <1 EU/μg, determined by LAL method.                                                                                                                                                                                                                                                                                                    |
| <b>Reconstitution</b>          | It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.                                                                                                                                                                                                                                    |
| <b>Storage &amp; Stability</b> | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.                                                                                                                             |
| <b>Shipping</b>                | Room temperature in continental US; may vary elsewhere.                                                                                                                                                                                                                                                                                |

### DESCRIPTION

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| <b>Background</b> | <p>The Collectrin protein assumes a crucial role in amino acid transport by serving as a binding partner for amino acid transporters SLC6A18 and SLC6A19, thereby regulating their trafficking on the cell surface and modulating their activity. It may also play a part in the trafficking of amino acid transporters SLC3A1 and SLC7A9 to the renal cortical cell membrane. Furthermore, Collectrin acts as a regulator of SNARE complex function and functions as a stimulator of beta cell replication. It exists both as a monomer and a homodimer, with the dimerization preventing CLTRN cleavage by BACE2. In its functional role, Collectrin interacts with SNAPIN and amino acid transporters SLC6A18, SLC6A19, and SLC6A20B, intricately regulating their membrane trafficking and amino acid transporter activities. These molecular interactions highlight Collectrin's versatile involvement in amino acid transport and cellular processes, emphasizing its significance in maintaining proper cellular function.</p> |
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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