

## Kallikrein-14 Protein, Mouse (His)

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| <b>Cat. No.:</b>         | HY-P71590   |
| <b>Synonyms:</b>         | Klk14; Gk14Kallikrein-14; EC 3.4.21.-; Glandular kallikrein KLK14; mGK14; Kallikrein related-peptidase 14 |
| <b>Species:</b>          | Mouse   |
| <b>Source:</b>           | E. coli   |
| <b>Accession:</b>        | Q8CGR5 (I24-N250)   |
| <b>Gene ID:</b>          | 317653  |
| <b>Molecular Weight:</b> | Approximately 28.5 kDa  |

### PROPERTIES

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| <b>AA Sequence</b>             | <pre> I I G G Y R C V R N   S Q P W Q V A L Q A   G P G H R F L C G G   V L L S D Q W V I T A A H C A R P I L H   V A L G K H N I R R   W E A T Q Q V V R V   A R Q V P H P Q Y Q P Q A H D N D L M L   L K L Q K K V R L G   R A V K T I S V A S   S C A S P G T P C R V S G W G T I A S P   I A R Y P T A L Q C   V N V N I M S E Q A   C H R A Y P G I I T S G M V C A G V P E   G G K D S C Q G D S   G G P L V C G G Q L   Q G L V S W G M E R C A M P G Y P G V Y   A N L C N Y H S W I   Q R T M Q S N           </pre> |
| <b>Biological Activity</b>     | The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.   |
| <b>Appearance</b>              | Lyophilized powder.  |
| <b>Formulation</b>             | Lyophilized from a 0.22 µm filtered solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.   |
| <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>Kallikrein-14, a serine-type endopeptidase, exhibits a versatile substrate specificity with both trypsin-like and chymotrypsin-like activities. This protease is implicated in the activation or inactivation of various proteinase-activated receptors, including F2R, F2RL1, and F2RL3, as well as other kallikreins such as KLK1, KLK3, KLK5, and KLK11. It plays a crucial role in seminal clot liquefaction through the direct cleavage of semenogelins SEMG1 and SEMG2, leading to the activation of KLK3. Additionally, Kallikrein-14 is involved in epidermal desquamation by cleaving desmoglein DSG1, contributing to the</p> |
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shedding of superficial corneocytes from the skin surface. Its engagement in tumor progression encompasses roles in growth, invasion, and angiogenesis. Notably, Kallikrein-14 is subject to inhibition by various serine protease inhibitors, including SERPINA1, SERPINC1, SERPINE1, and SERPINF2, as well as aprotinin, soybean trypsin inhibitor, and leupeptin. Its autoproteolytic activity may have regulatory implications, and the enzyme's activation is facilitated by citrate while being inhibited by zinc and, to a lesser extent, manganese.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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