

## EGF Protein, Canine (His)

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| Cat. No.:         | HY-P72981  |
| Synonyms:         | Pro-epidermal growth factor; Urogastrone; EGF; HOMG4 |
| Species:          | Canine   |
| Source:           | E. coli  |
| Accession:        | Q9BEA0 (N973-R1024)                                  |
| Gene ID:          | 403657   |
| Molecular Weight: | 16-22 kDa  |

### PROPERTIES

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|---------------------|--|
| AA Sequence         | <p>           N G Y R E C P S S Y    D G Y C L Y N G V C    M Y I E A V D R Y A    C N C V F G Y V G E<br/>           R C Q H R D L K W E    L R         </p>  |
| Biological Activity | Immobilized Canine EGF, His Tag at 1 µg/mL (100 µl/well) on the plate. Dose response curve for Human EGFR, hFc Tag with the EC <sub>50</sub> of 4.7 ng/mL determined by ELISA.                             |
| Appearance          | Lyophilized powder   |
| Formulation         | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.                                      |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.  |
| Reconstitution      | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.  |
| Storage & Stability | 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. |
| Shipping            | Room temperature in continental US; may vary elsewhere.  |

### DESCRIPTION

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| Background | <p>Epidermal Growth Factor (EGF) is a potent stimulator of growth for various epidermal and epithelial tissues both in vivo and in vitro, as well as some fibroblasts in cell culture. This multifunctional protein plays a vital role in cellular processes, particularly in promoting the proliferation and development of tissues. Beyond its role in tissue growth, EGF acts as a magnesiotropic hormone, facilitating magnesium reabsorption in the renal distal convoluted tubule through the engagement of EGFR and activation of the magnesium channel TRPM6. Additionally, EGF interacts with EGFR, promoting EGFR dimerization, and engages with RHBDF1 and RHBDF2, potentially influencing EGF's intracellular trafficking and degradation pathways. These interactions underline the complex and versatile functions of EGF in both growth and</p> |
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signaling processes within the cell.

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

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