

EGLP/GPX5 Protein, Pig (His-Myc)

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| Cat. No.: | HY-P72211 |
| Synonyms: | GPX5Epididymal secretory glutathione peroxidase; EC 1.11.1.9; Epididymis-specific glutathione peroxidase-like protein; EGLP; Glutathione peroxidase 5; GPx-5; GSHPx-5 |
| Species: | Pig |
| Source: | E. coli |
| Accession: | O18994 (N22-E219) |
| Gene ID: | 396920 |
| Molecular Weight: | Approximately 27.6 kDa |

PROPERTIES

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| AA Sequence | <pre> NSNLEKMDCY K D V T G T I Y D Y D A F T L N G N E H I Q F K Q Y A G K H V L F V N V A T Y C G L T A Q Y P E L N T L Q E E L K P F G L V V L G F P C N Q F G K Q E P G E N S E I L L G L K Y V R P G G G Y V P N F Q L F E K G D V N G E K E Q K V F T F L K H S C P H P S E L I G S I G Y I S W E P I R V H D I R W N F E K F L V G P D G V P V M R W V H E T P I S T V K S D I L A Y L K Q F K T E </pre> |
| Biological Activity | The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet. |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol. |
| 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 ₂ 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>The EGLP/GPX5 protein emerges as a potential constituent of a protective system akin to glutathione peroxidase, safeguarding sperm membrane lipids against peroxide damage. Despite the limited enzymatic activity towards hydrogen peroxide or organic hydroperoxides exhibited by the purified porcine enzyme, the protective effect suggests a role beyond enzymatic function. Instead, EGLP/GPX5 may protect sperm from premature acrosome reaction in the epididymis by binding to lipid peroxides. This binding action could prevent the interaction of lipid peroxides with phospholipase A2, thereby mitigating the induction of the acrosome reaction. The multifaceted nature of EGLP/GPX5 implies its involvement in</p> |
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non-enzymatic mechanisms that contribute to the defense against peroxide-induced damage, highlighting its potential significance in preserving sperm viability and functionality. Further investigation is essential to unravel the specific molecular pathways and interactions orchestrated by EGLP/GPX5 in this protective capacity.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA