

IGF2 Protein, Human (P.pastoris)

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| Cat. No.: | HY-P73906 |
| Synonyms: | Insulin-like growth factor II; IGF-II; Preptin; IGF2; PP1446 |
| Species: | Human |
| Source: | P. pastoris |
| Accession: | P01344 (A25-E91) |
| Gene ID: | 3481 |
| Molecular Weight: | Approximately 7.5 kDa |

PROPERTIES

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| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 μ m filtered solution of 50 mM Tris, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. |
| Endotoxin Level | <1 EU/ μ g, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 μ g/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 IGF2 protein, a member of the insulin-like growth factor family, plays a pivotal role in promoting growth and influencing fetoplacental development, particularly as a major fetal growth hormone in mammals. It is regulated by placental lactogen and contributes to tissue differentiation. In adults, IGF2 is involved in glucose metabolism in adipose tissue, skeletal muscle, and the liver. Acting as a ligand for integrin, it facilitates IGF2 signaling and positively regulates the function of the myogenic transcription factor MYOD1, controlling muscle terminal differentiation. Additionally, IGF2 inhibits myoblast differentiation and modulates metabolism by increasing mitochondrial respiration rates. Moreover, in glucose-mediated co-secretion with insulin, IGF2's counterpart, preptin, acts as a physiological amplifier of glucose-mediated insulin secretion. Notably, IGF2 exhibits osteogenic properties, enhancing osteoblast mitogenic activity through the phosphoactivation of MAPK1 and MAPK3.</p> |
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Caution: Product has not been fully validated for medical applications. For research use only.

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