Human IGF-2 / IGF-II Protein

Catalog Number: **13032-HNAY**

General Information

Gene Name Synonym:

C11orf43; IGF-II; PP9974

Protein Construction:

A DNA sequence encoding the human IGF2 (ADO21454.1) (Ala25-Glu91) was expressed.

Source: Human

Expression Host: Yeast

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ala 25

Molecular Mass:

The recombinant human IGF2 consists 67 amino acids and predicts a molecular mass of 7.5 kDa.

Formulation:

Lyophilized from sterile 50 mM Tris, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

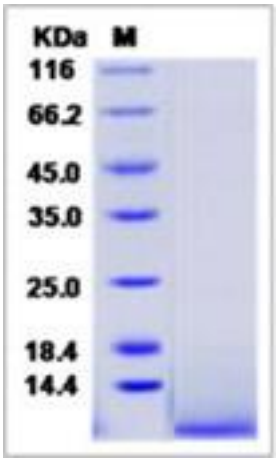
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Insulin-like growth factor 2 (IGF-2/IGF-II) is a member of the insulin family of polypeptide growth factors, which are involved in development and growth. It is an imprinted gene, expressed only from the paternal allele, and epigenetic changes at this locus are associated with Wilms tumour, Beckwith-Wiedemann syndrome, rhabdomyosarcoma, and Silver-Russell syndrome. IGF-2/IGF-II is a mediator of prolactin-induced alveologenesis; prolactin, IGF-2, and cyclin D1, all of which are overexpressed in breast cancers, are components of a developmental pathway in the mammary gland. IGF-2 and exhibited statistically significant, positive associations with colorectal cancer risk when cases were confined to those diagnosed within a relatively short time period after enrolment. Circulating IGF-2 and IGFBP-3 can serve as early indicators of impending colorectal cancer. IGF-2/IGF-II appears to be involved in the progression of many tumours. It binds to at least two different types of receptor: IGF type 1 (IGF 1R) and mannose 6-phosphate/IGF type 2 (M6-P/IGF 2R). Ligand binding to IGF 1R provokes mitogenic and anti-apoptotic effects. M6-P/IGF 2R has a tumour suppressor function—it mediates IGF 2 degradation. Mutation of M6-P/IGF 2R causes both diminished growth suppression and augmented growth stimulation. The aim of this study was to investigate the role of IGF 2 and its receptors (IGF 1R and IGF 2R) in human gastric cancer.

References

1.Harvey MB, *et al.* (1991) IGF-2 receptors are first expressed at the 2-cell stage of mouse development. Development. 111(4): 1057-60. 2.Peters G, *et al.* (2003) IGF-1R, IGF-1 and IGF-2 expression as potential prognostic and predictive markers in colorectal-cancer. Virchows Arch. 443(2): 139-45. 3.Burrow S, *et al.* (1998) Expression of insulin-like growth factor receptor, IGF-1, and IGF-2 in primary and metastatic osteosarcoma. J Surg Oncol. 69(1): 21-7.