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ProductInformation

Insulin-Like Growth Factor II
Mouse, Recombinant
Expressed in *E. coli*

Product Number **I8904**

Product Description

Recombinant Mouse Insulin-like Growth Factor II (IGF-II) is produced from a DNA sequence encoding the mature IGF-II protein.[1] Mouse IGF-II, a 67 amino acid protein, has a predicted molecular mass of ~7.4 kDa. Mouse and human IGF-II share 91% sequence homology.

Insulin-like growth factor II (also known as multiplication stimulating activity or MSA) and insulin-like growth factor I (IGF-I) belong to the family of insulin-like growth factors, which are structurally homologous to proinsulin. Mature IGF-I and IGF-II are highly conserved and share ~70% amino acid sequence identity. They have autocrine, paracrine, and endocrine functions.

IGF-II is a potent mitogenic growth factor that mediates growth-promoting activities in embryonic development. IGF-II binds the IGF-II receptor with high affinity.

IGF-I and IGF II are expressed in many tissues and cell types. IGF-II is mitogenic for a variety of cultured cells including human or chicken fibroblasts, mouse 3T3 cells, normal rat kidney cells, and MCF-7 human breast carcinoma cells.[2]

Reagent

Supplied as ~50 µg of protein lyophilized from a 0.2 µm filtered solution in 30% acetonitrile and 0.1% TFA.

Preparation Instructions

Reconstitute the contents of the vial using sterile phosphate buffered saline containing at least 0.1% human serum albumin or bovine serum albumin. Prepare a stock solution of no less than 10 µg/mL.

Storage/Stability

Store at –20 °C. Upon reconstitution, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

Product Profile

Recombinant Mouse Insulin-like Growth Factor II (IGF-II) is measured in a serum-free cell proliferation assay using the human breast carcinoma cell line, MCF-7 cells.[2]

The ED_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: >97% as determined by SDS-PAGE, visualized by silver stain.

Endotoxin level is <1.0 EU per 1 µg cytokine as determined by the LAL (Limulus amebocyte lysate) method.

References

1. Stempien, M., et al., DNA, **5**, 357 (1986).
2. Karey, K.P., et al., Cancer Research, **48**, 4083 (1988).

KAA 05/06