SIGMA® CHEMICAL COMPANY

DES (1-6) IGF-II
RECOMBINANT ANALOG
Product No. I-1521
Store at 2-8°C

PRODUCT DESCRIPTION

DES (1-6) IGF-II is a 61 amino acid analog of human insulin-like growth factor II, lacking the first six N-terminal amimo acids. DES (1-6) IGF-II exhibits reduced affinity for IGF binding proteins (IGFBPs), which are known to inhibit the actions of IGF's.

Synthesized recombinantly in *E. coli* using a patented fusion protein expression system, DES (1-6) IGF-II is then purified by liquid chromatography.

DES (1-6) IGF-II has been developed as an inexpensive, high quality potent analog of IGF-II for use as a growth factor supplement in cell culture.

DES (1-6) IGF-II is supplied as a powder, lyophilized from 0.1 M acetic acid. Molecular weight is 6,765 daltons.

REAGENT

For laboratory use only.
Not for drug, household or other uses.

RECONSTITUTION, STORAGE AND HANDLING

DES (1-6) IGF-II should be reconstituted in 10 mM HCl at a concentration of 1 mg/ml. Stock solutions of peptide can be stored for at least 3 months at -20°C or -70°C.

When diluting to concentrations of < 1 mg/ml in buffer, media, etc., a carrier protein should be added to minimize adsorption of peptide to plastic or glass surfaces.
Bovine Serum Albumin at concentrations between 1 and 5 mg/ml is recommended as a carrier protein in serum-free conditions. A carrier protein is not necessary in serum-supplemented cultures. Stock solutions of < 1 mg/ml are not recommended for long-term storage.

When reconstituting the 100 µg package, a 1 mg/ml stock solution is not possible. The peptide should be dissolved in 100 µl of 10 mM HCl. Before removing from the vial add 400 µl of buffer solution containing 1 mg/ml BSA and mix. Store at -20°C or -70°C. Avoid repeated freeze-thaw cycles.

HANDLING SUMMARY

•Do not add the peptide to low protein or protein-free media prior to filter sterilization

•Use a low protein-binding membrane

•Filter sterilize DES (1-6) IGF-II at a concentration of 1 mg/ml or greater if no carrier protein is present

•Add a carrier protein if DES (1-6) IGF-II is to be diluted to concentrations < 1 mg/ml

•Avoid multiple freeze-thaw cycles

PRODUCT PERFORMANCE

DES (1-6) IGF-II is shown to stimulate the growth of L6 myoblasts at an ED_{50} of ≤ 100 ng/ml.

5H083

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