ISOkine
PREMIUM GRADE GROWTH FACTORS AND CYTOKINES

Animal-Free | Endotoxin-Free | Carrier-Free

KGF, human, recombinant

Catalog Number: IK0600

DESCRIPTION
Keratinocyte growth factor (KGF, FGF-7, HBGF-7) is a member of the FGF family of 23 related mitogenic proteins. These proteins play a central role during embryonic development and postnatal growth and tissue repair, by promoting cellular proliferation and differentiation. KGF specifically stimulates epithelial cells and keratinocytes, it is the most potent growth factor identified thus far for skin keratinocytes. KGF takes part in the development of kidney and lung, angiogenesis and has a key role in wound healing following skin injuries. It shows considerable species cross-reactivity (mouse, monkey, porcine cells) as the other members of the FGF family.

SOURCE
Produced in the endosperm tissue of barley grain (*Hordeum vulgare*). ISOkine® growth factors and cytokines are animal-free and serum-free and void of antibiotics, endotoxins, viruses, and prions.

FORMULATION
2xPBS pH 7.2, sterile filtered through 0.22 µm filter.

PURITY
> 95% by SDS-PAGE gel analysis.

SHELF LIFE
The lyophilized protein has a shelf life for 3 years when stored at < 20°C.

RECONSTITUTION
Always centrifuge the vial before opening. It is recommended to reconstitute the lyophilized protein in sterile buffered saline to a concentration of no less than 100 µg/ml. For long term storage of the reconstituted solution, it is recommended to add a carrier protein (0.1% HSA or BSA).

STABILITY
The lyophilized protein, though stable at room temperature for a few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

BIOLOGICAL ACTIVITY
Each batch of ISOkine® growth factors is tested for bioactivity and verified to have comparable activity to a commercial source. The bioactivity of ISOkine® recombinant human KGF is assayed by measuring its dose-dependent effect on the proliferation of 4MBr5 rhesus monkey epithelial cells. The ED50 for this effect using KGF is typically <60 ng/ml. Optimal concentration should be determined for specific applications and cell lines.

ENDOTOXIN LEVEL
Endotoxin level is < 0.0100 EU per µg of ISOkine® product by LAL method.

MAT ASSAY
Purified ISOkine® product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using Human 10-plex Cytokine Assay measuring IL-6, TNF-alpha and IL-1beta induction.
(Ref. The Blood Bank, University Hospital of Iceland, Reykjavik, Iceland.)

MOLECULAR WEIGHT
Recombinant human KGF contains 163 amino acids and an N-terminal 6 amino acid histidine tag for a total length of 169 amino acids and has a predicted molecular mass of 19.7 kDa.

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