

Recombinant human keratinocyte growth factor (KGF). Animal and Endotoxin free

CATALOGUE NUMBER: AMS-942 AVAILABLE SIZES: 10µg, 50µg, 100µg, 1000µg

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

Recombinant human KGF is produced in the endosperm tissue of barley grain (*Hordeum vulgare*).

FORMULATION

Sterile filtered through a 0.2 µm filter. Lyophilized from PBS, pH 7.2

PURITY

Greater than 95% by SDS-PAGE gel analysis.

RECONSTITUTION

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

STABILITY

The lyophilized protein, though stable at room temperature for 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 growth factor is tested for bioactivity and verified to have comparable activity to a commercial source. The bioactivity of recombinant human KGF was determined by its dose dependent effect on proliferation of 4MBr5 rhesus monkey epithelial cells. The ED50 for this effect is typically below 4 ng/ml corresponding to specific activity of > 2.5 x 10e5 U/mg. Optimal concentration should be determined for specific applications and cell lines.

ENDOTOXIN LEVEL

Endotoxin level is less than 0.005ng per µg of ISOkine™ product (0.05EU/µg).

MAT assay

Purified 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 164 amino acids and a 16 a.a. histidine-based tag for a total length of 180 a.a. and has a predicted molecular mass of 21.2 kDa including his-tag. As a result of glycosylation, the recombinant protein migrates as two bands with an apparent molecular mass of 26 and 28 kDa in SDS-PAGE.

AMSBIO | www.amsbio.com | info@amsbio.com

 **UK & Rest of the World**
AMS Biotechnology (Europe) Ltd
184 Park Drive, Milton Park
Abingdon, UK
T: +44 (0)1235 828 200
F: +44 (0) 1235 820 482

 **North America**
amsbio LLC
1035 Cambridge Street,
Cambridge, MA 02141
T: +1 617 945 5033 or
T: +1 800 987 0985
F: +1 617 945 8218

 **Germany**
AMS Biotechnology (Europe) Ltd
Bockenheimer Landstr. 17/19
60325 Frankfurt/Main
T: +49 (0) 69 779099
F: +49 (0) 69 13376880

 **Switzerland**
AMS Biotechnology (Europe) Ltd
Centro Nord-Sud 2E
CH-6934 Bioggio-Lugano
T: +41(0) 91 604 55 22
F: +41(0) 91 605 17 85