

bio-risk-free | not for human use | for research only | not for diagnostic or therapeutic use

VEGF164, recombinant, mouse

CATALOG NUMBER: 01-A0950 LOT NUMBER: 01-1-095-4145 AVAILABLE SIZES: 10µg, 50µg

DESCRIPTION

Vascular endothelial growth factor (VEGF) stimulates vascular permeability and actively mediates both angiogenesis and vasculogenesis in the fetus as well as the adult. It binds to transmembrane receptors (VEGF R1 and R2) on endothelial cells, thereby promoting endothelial proliferation, migration and survival, and inhibiting apoptosis. VEGF is required during embryogenesis and has a role in wound healing in adults. Alternately spliced isoforms of VEGF have been identified in the mouse, consisting of 120, 164 and 188 amino acids (aa). VEGF164 shares 97% aa sequence identity with the corresponding regions of rat and 89% with human, and its biological activities are not species-specific.

SOURCE

ISOkine™ recombinant mouse VEGF164 is produced in the endosperm tissue of barley grain (*Hordeum vulgare*), that exhibits up to 50 times less protease activity than *E.coli* or mammalian cells. Barley seed is void of any human or animal viral contaminants that could jeopardize your cell culture.

FORMULATION

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

PURITY

Greater than 98% 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

Bioactivity is assayed by measuring the dose dependent effect of mouse VEGF164 on proliferation of Human Umbilical Vein Endothelial Cells (HUVEC) cells. This batch of ISOkine™ growth factor was tested by an independent company and exhibits an ED50 of 2.9 ng/ml corresponding to 0.34x10E6 U/mg specific activity, a value comparable to their in-house standard measured in parallel. 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) as measured by turbidimetric kinetic assay.*

* Ref. Associates of Cape Cod Industries, Deacon Park, Knowsley, Liverpool, UK

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 mouse VEGF164 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 21.4 kDa including his-tag. As a result of glycosylation, the recombinant protein migrates with an apparent molecular mass of 30 kDa in SDS-PAGE.

DISCLAIMER

pioneering proteins™