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Rec. human Vascular Endothelial Growth Factor
rHuVEGF

Product	Cat#	Package size
Recombinant **human Vascular Endothelial Growth Factor**	**C6036.0002**	**2µg**
Recombinant **human Vascular Endothelial Growth Factor**	**C6036.0010**	**10µg**
Recombinant **human Vascular Endothelial Growth Factor**	**C6036.1000**	**1mg**

Product description

Vascular endothelial growth factor (VEGF) is an important signaling protein involved in vessel formation. As its name implies, VEGF activity has been mostly studied on cells of the vascular endothelium, although it does have effects on a number of other cell types (e.g. stimulation monocyte/macrophage migration, neurons, cancer cells, kidney epithelial cells).

VEGF mediates increased vascular permeability, induces vasculogenesis and endothelial cell production, promotes cell migration, and inhibits apoptosis. In vitro, VEGF has been shown to stimulate endothelial cell mitogenesis and cell migration. VEGF is also a vasodilator and increases microvascular permeability and was originally referred to as vascular permeability factor.

VEGF is located in normal cartilage though only osteoarthritic cartilage expresses the VEGF receptors, NP1, VEGFR1 and VEGFR2. The VEGF level in the culture media from OA chondrocytes was more than 3 folds higher than in media from normal chondrocytes

Recombinant human Vascular Endothelial Growth Factor (rHuVEGF) is produced in *E.Coli* as a non-glycosylated polypeptide of 165 amino acids and a total molecular mass of 38.2kDa.

Synonyms:

Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF, MGC70609.

Source: *E. coli*

Biological activity

Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 3.7-5.6 ng/mL, corresponding to a Specific Activity of 178,570-270,270IU/mg.

Purity: >95% determined by SDS-PAGE and RP-HPLC

Amino acid sequence:

APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR.

Formulation

The VEGF protein was lyophilized from a concentrated (1mg/mL) solution with no additives.

Stability

Lyophilized human Vascular Endothelial Growth Factor (rHuVEGF) although stable at room temperature for 3 weeks, should be stored desiccated below -20°C.
Upon reconstitution rHuVEGF should be stored at +2°C to +8°C between 2-7 days and for future use below -20°C.
Please prevent from repeated freeze-thawing cycles.

Reconstitution

We recommend to reconstitute the lyophilised human Vascular Endothelial Growth Factor (rHuVEGF) in sterile demineralised water at a concentration of not less than 100µg/mL which can be further diluted to other aqueous solutions.

Usage

This product is for research/laboratory usage only. It may not be used as drug, agricultural or pesticidal product, food additive or household chemical.

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