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ProductInformation

Vascular Endothelial Growth Factor (VEGF)
Mouse, Recombinant
Expressed in *E. coli*

Product No. **V4512**

Product Description

Vascular Endothelial Growth Factor (VEGF), also known as vasculotropin, is an angiogenic growth factor, which is heat and acid stable. Mouse VEGF is a dimeric, heparin-binding glycoprotein consisting of two 165 amino acid residue subunits with a molecular weight of approximately 39 kDa.[1] VEGF is a basic protein, with an isoelectric point of 8.5.[2] VEGF promotes the growth of endothelial cells isolated from bovine adrenal cortex, cerebral cortex, fetal and adult aorta, and human umbilical vein.[2]

The target cell specificity of VEGF is restricted to vascular endothelial cells.[2] VEGF has no mitogenic effect on cultured corneal endothelial cells, vascular smooth muscle cells, BHK-12 fibroblasts, keratinocytes, human sarcoma cells or lens epithelial cells.[2] A variety of human tumor cell lines including sarcoma and carcinoma cells show a 3.7 kb RNA transcript that hybridizes with the VEGF probe in a Northern blot.[2] In addition, mouse sarcoma 180 cells express the VEGF mRNA and secrete a VEGF-like mitogen.[3]

Reagent

Lyophilized from a 0.2 µm-filtered, aseptically filled buffered solution.

Storage/Stabilty

The lyophilized protein is best stored at –20 °C. It is stable for up to a few weeks at room temperature. After reconstitution, it is best stored in working aliquots at –20 °C. Repeated freezing and thawing is not recommended.

Reconstitution

Reconstitute the contents of the vial in water to a concentration of 0.1-1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 2-8 °C for up to one week. For extended storage, freeze in working aliquots at –20 °C.

Product Profile

The biological activity of mouse, recombinant VEGF is measured by its ability to stimulate ^{3}H-thymidine incorporation in human umbilical vein endothelial cells and bovine aortic endothelial cells.[4]

Entotoxin tested.

References

1. Claffey, K.P. et al., J. Biol. Chem. **267**, 16317 (1992).
2. Ferrara, N., et al., Endocrine Reviews, **13**, 18 (1992)
3. Clauss, M., et al., J. Exp. Med., **172**, 1535 (1990)
4. Conn, G., et al., Proc. Natl. Acad. Sci. USA, **87**, 1323 (1990).

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