Rev03
Update: Dec,14,2021

DATASHEET

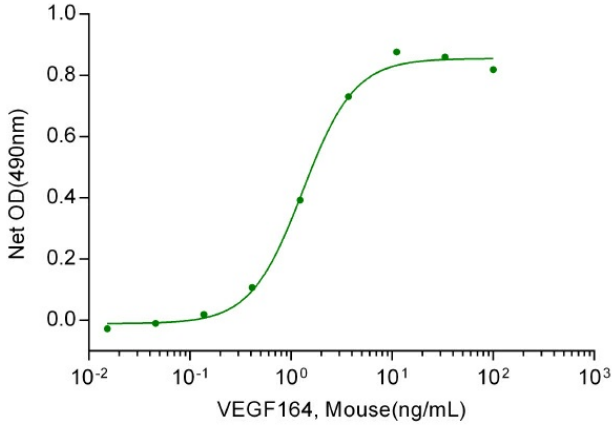
VEGF164, Mouse (P. pastoris-expressed)

Cat. No.: Z02690

Product Introduction

Species	Mouse
Protein Construction	Expressed with an N-terminal Met. **VEGF164 (Ala27-Arg190)** **Accession # Q00731-2**
Purity	> 97% as analyzed by SDS-PAGE
Endotoxin Level	< 1 EU/µg of protein by gel clotting method
Biological Activity	ED_{50} < 6.0 ng/ml, measured by the dose-dependent stimulation of the proliferation of HUVEC cells, corresponding to a specific activity of > 1.7×10^5 units/mg.
Expression System	P. pastoris
Apparent Molecular Weight	~39 kDa, on SDS-PAGE under non-reducing conditions.
Formulation	Lyophilized after extensive dialysis against 25 mM HEPES, 150 mM NaCl, pH 7.0.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O up to 100 µg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Examples



ED_{50}<6.0 ng/ml, measured by the dose-dependent stimulation of the proliferation of HUVEC cells, corresponding to a specific activity of > 1.7x 10^5 units/mg.

Background

Target Background : Vascular Endothelial Growth Factor (VEGF) was initially purified from media conditioned by normal bovine pituitary folliculo-stellate cells and by a variety of transformed cell lines as a mitogen specific for vascular endothelial cells. It was subsequently found to be identical to an independently discovered vascular permeability factor (VPF), which was previously identified in media conditioned by tumor cell lines based on its ability to increase the permeability of capillary blood vessels. Three mouse cDNA clones, which arise through alternative splicing and which encode mature mouse monomeric VEGF having 120, 164, or 188, amino acids, respectively, have been identified. Two receptor tyrosine kinases (RTKs), Flt-1 and Flk-1 (the mouse homologue of human KDR), both members of the type III subclass of RTKs containing seven immunoglobulin-like repeats in their extracellular domains, have been shown to bind VEGF with high affinity. The roles of the homodimers of KDR, Flt, and the heterodimer of KDR/Flt in VEGF signal transduction remain to be elucidated. In vivo, VEGF has been found to be a potent angiogenesis inducer.

Synonyms : Folliculostellate cell-derived growth factor; Glioma-derived endothelial cell mitogen; VEGF-164; Vascular Permeability Factor; VPF

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.