DB054: VEGF (A19)

Background:

The vascular endothelial growth factor (VEGF) family currently includes VEGF (VEGF-A), VEGF-B, VEGF-C, VEGF-D, VEGF-E, and PIGF (1). VEGF and its receptor system have been shown to be the fundamental regulators in the cell signaling of angiogenesis (2). Most tumors have the absolute requirement of angiogenesis and VEGF has been described as the most potent angiogenic cytokine linked to this process (3&4). To date 5 different isoforms of VEGF have been described, VEGF 121, VEGF 145, VEGF 165, VEGF 165b, and VEGF 189(4&5). These isoforms are generated as the result of alternative splicing from a single VEGF gene. These various isoforms have been shown to bind to two tyrosine-kinase receptors flt-1 (VEGFR-1) and flk-1/KDR (VEGFR-2), which have been found to be expressed almost exclusively on endothelial cells (5).

Origin:

VEGF (A19) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to a domain near the amino terminus of Human VEGF.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG VEGF *DB054 (A19)*, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, *DB054P*, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

VEGF *DB054 (A19)* reacts with VEGF of Human origin by western blotting. Western blotting starting dilution: 1:200.
Immunoprecipitation: not yet tested
Immunohistochemistry: not yet tested

Storage:

Store this product at 4º C, do not freeze. The product is stable for one year from the date of shipment.

References:

1. Matsumoto T, Claesson-Welsh L. 2001. VEGF receptor signal transduction. Sci STKE 112:RE21.
2. Shibuya M. 2001. Structure and function of VEGF/VEGF-receptor system involved in angiogenesis. Cell Struct Funct 26(1):25-35.
3. Hasan J, Jasyson GC. 2001. VEGF antagonists. Expert Opin Biol Ther 1(4):703-18.
4. Bates DO, Cui TG, Doughty JM, Winkler M, Sugiono M, Shields JD, Peat D, Gillatt D, Harper SJ. 2002. VEGF165b, an inhibitory splice variant of vascular endothelial growth factor, is down-regulated in renal cell carcinoma. Cancer Res 62(14):4123-31.
5. Neufel G, Cohen T, Gengrinovitch S, Poltorak Z. 1999. Vascular endothelial growth factor (VEGF) and its receptors. FASEB 13(1):9-22.

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