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Product Information

Anti-VEGF165 antibody, Mouse monoclonal
Clone VG-20, purified from hybridoma cell culture

Product Number **SAB4200815**

Product Description

Monoclonal Anti-VEGF165 (mouse IgG1 isotype) is derived from the VG-20 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with recombinant human VEGFA protein (GeneID: 7422). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Product Number ISO2). The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-VEGF165 specifically recognizes human VEGFA isoform VEGF165 and does not recognize VEGF121 isoform. The antibody is recommended to use in various immunological techniques, including immunoblot (~21 kDa). Detection of the VEGF165 band by immunoblotting is specifically inhibited by the immunogen.

VEGFA, Vascular Endothelial Growth Factor A, also known as or Vascular permeability factor (VPF), is a major signaling growth factor member of the VEGF family, a sub-group of the Platelet-Derived Growth Factor (PDFG) proteins, which is characterized by its conserved cystine-knot structure.[1] VEGF proteins are involved in angiogenesis and vasculogenesis, they predominantly activate proliferation and survival of endothelial cells and migration in non-endothelial cells.[1]

VEGFA has several isoforms due to alternative splicing mainly at exons 6-8. The VEGF exon 8 splicing isoforms are divided into two groups, the "pro-angiogenic" VEGFxxxa isoforms considered to be activators of proliferation, survival, and angiogenesis and the VEGFxxxb isoforms that are considered as "anti-angiogenic".[2] VEGF expression is upregulated in hypoxia and in many types of cancers. Furthermore, VEGF receptors (VEGFR1 and VEGFR2) are also overexpressed in several tumors and studies have shown that high levels of VEGF correlates with poor prognosis.[1-8] Inhibition of VEGF mediated angiogenesis signaling pathways have potential in angiogenesis-related disease therapy, this can be achieved by blocking either the circulating VEGF using Anti-VEGF antibodies such as Bevacizumab and Aflibercept[5] or by VEGFR-2 inhibition using small molecules such as Gamabufotalin (CS-6) and Arenobufagin.[6-8]

Reagent

Supplied as a solution in 0.01 M phosphate buffered phosphate saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 μg/mL is recommended using purified recombinant human VEGFA protein expressed in HEK-293.
Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration test.

References

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6. Arcondéguy, T. et al., *Nucleic Acids Res.*, **41**, 7997-8010 (2013).
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