BACKGROUND
The onset of angiogenesis is believed to be an early event in tumorogenesis and may facilitate tumor progression and metastasis. Several growth factors with angiogenic activity have been described. These include fibroblast growth factors (FGFs), platelet derived growth factor (PDGF) and vascular endothelial growth factor (VEGF). VEGF is a dimeric glycoprotein with structural homology to PDGF. Several variants of VEGF have been described that arise by alternative mRNA splicing. It has been speculated that VEGF may function as a tumor angiogenesis factor in vivo because the expression pattern of VEGF is consistent with a role in embryonic angiogenesis. VEGF mRNA is formed in some primary tumors, VEGF is produced by tumor cell lines in vitro and VEGF mitogenic activity appears to be restricted to endothelial cells. A member of the PDGF receptor family, Flt, has been identified as a high-affinity receptor for VEGF.

CHROMOSOMAL LOCATION
Genetic locus: VEGFA (human) mapping to 6p21.1; Vegfa (mouse) mapping to 17C.

SOURCE
VEGF (A-20) is available as either rabbit (sc-152) or goat (sc-152-G) affinity purified polyclonal antibody raised against a peptide mapping at the N-terminus of VEGF-A of human origin.

PRODUCT
Each vial contains 100 µg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.
Blocking peptide available for competition studies, sc-152 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).
Available as agarose conjugate for immunoprecipitation, sc-152 AC, 500 µg/0.25 ml agarose in 1 ml; as biotin conjugate, sc-152 B, 200 µg/ml; and azide-free for biological studies, sc-152 L, 200 µg/0.1 ml.

APPLICATIONS
VEGF (A-20) is recommended for detection of the 189, 165 and 121 amino acid splice variants of VEGF of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VEGF (A-20) is also recommended for detection of the 189, 165 and 121 amino acid splice variants of VEGF in additional species, including bovine.

Suitable for use as control antibody for VEGF siRNA (h): sc-29520, VEGF siRNA (m): sc-36815, VEGF shRNA Plasmid (h): sc-29520-SH, VEGF shRNA Plasmid (m): sc-36815-SH, VEGF shRNA (h) Lentiviral Particles: sc-29520-V and VEGF shRNA (m) Lentiviral Particles: sc-36815-V.

Molecular Weight of VEGF monomer: 21 kDa.
Molecular Weight of VEGF dimer: 42 kDa.

STORAGE
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

SELECT PRODUCT CITATIONS

RESEARCH USE
For research use only, not for use in diagnostic procedures.

Try VEGF (C-1): sc-7269 or VEGF (F-5): sc-365578, our highly recommended monoclonal alternatives to VEGF (A-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see VEGF (C-1): sc-7269.