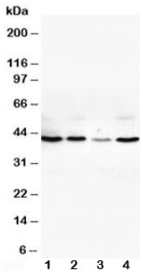
VEGF4 Antibody / FIGF Polyclonal Antibody (R30396)

Catalog No.	Formulation	Size
R30396	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	O43915
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This VEGF4 Antibody / FIGF Polyclonal Antibody is available for research use only.



VEGF4 Antibody by WB in human cell lysates. Western blot analysis of human SW620 (lane 1), COLO320 (lane 2), 6T-CEM (lane 3), and HT1080 (lane 4) cell lysates using VEGF4 Antibody. Immunoreactive bands are detected at approximately 40 kDa in all four samples, consistent with the expected molecular weight of the VEGF-D precursor protein. This FIGF Polyclonal Antibody recognizes vascular endothelial growth factor D, a secreted signaling protein involved in angiogenesis, lymphangiogenesis, and vascular remodeling.

Description

VEGF4 Antibody recognizes vascular endothelial growth factor D (VEGF-D), a secreted signaling protein encoded by the VEGFD gene, also known as FIGF. VEGF-D belongs to the vascular endothelial growth factor family and regulates the growth, remodeling, and maintenance of blood and lymphatic vessels. Originally identified as a c-fos-induced growth factor, VEGF-D is particularly important for lymphangiogenesis, the formation and expansion of lymphatic vessels. Its activity is mediated primarily through vascular endothelial growth factor receptors VEGFR-3 (FLT4) and VEGFR-2 (KDR), which regulate endothelial cell proliferation, migration, and survival.

The human VEGFD gene is located on chromosome Xp22.31 and encodes a precursor protein of approximately 354 amino acids. VEGF-D contains a central VEGF homology domain flanked by N-terminal and C-terminal propeptides. Proteolytic processing removes these terminal regions, generating mature VEGF-D with increased receptor-binding activity. The precursor and processed forms differ in molecular weight and biological activity, making protein maturation an important mechanism regulating VEGF-D signaling. Mature VEGF-D forms homodimers and interacts with VEGFR family receptors to initiate downstream signaling pathways.

VEGF-D binding to VEGFR-3 promotes lymphatic endothelial cell proliferation and migration, supporting lymphatic vessel development and maintenance. Proteolytically processed VEGF-D can also activate VEGFR-2, contributing to angiogenesis and vascular remodeling. These receptor-mediated responses involve intracellular signaling pathways that regulate endothelial cell survival, cytoskeletal organization, and vascular growth. The FIGF Polyclonal Antibody is relevant to research investigating VEGF-D expression and its role in vascular signaling and endothelial cell biology.

VEGFD has been studied extensively in cancer biology because lymphatic vessel expansion can facilitate the movement of tumor cells toward regional lymph nodes. Increased VEGF-D expression has been associated with tumor lymphangiogenesis and lymphatic metastasis in several malignancies, although its effects depend on the tumor microenvironment and receptor availability. VEGF-D is also investigated in inflammation, tissue repair, and cardiovascular biology, where changes in vascular signaling can influence tissue remodeling and endothelial function.

Research involving VEGF-D focuses on growth factor processing, VEGFR activation, vascular development, and pathological lymphangiogenesis. Understanding the balance between precursor and mature VEGF-D is important for interpreting its biological activity. NSJ Bioreagents offers antibodies targeting this signaling protein for research into vascular biology and tumor progression. A VEGF4 Antibody provides a tool for examining VEGF-D expression and its involvement in lymphatic vessel growth, angiogenesis, endothelial signaling, and cancer-associated vascular remodeling.

For an alternative antibody targeting the same vascular growth factor, see our VEGFD Antibody.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the VEGF4 Antibody / FIGF Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human VEGFD (VIDEEWQRTQCSPRE) was used as the immunogen for this VEGF4 antibody (100% homologous human, mouse and rat).

Storage

After reconstitution, the VEGF4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

VEGFD antibody, VEGF-D antibody, FIGF antibody, Vascular Endothelial Growth Factor D antibody, C-fos Induced Growth Factor antibody, VEGF4 Protein antibody

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