

VEGFR2 / Flk-1 / KDR3 / CD309 Monoclonal Mouse Antibody (KDR657)

Product Description

CD309, also known as VEGF-R2, KDR3, and Flk-1 (mouse), is a type I transmembrane glycoprotein. It is a member of the CSF-1/PDGF receptor family of type III tyrosine kinase receptors. Human VEGF-R2 is mainly expressed by endothelial cells, embryonic tissues, and megakaryocytes. It plays an important role in the regulation of angiogenesis, vasculogenesis, and vascular permeability. The ligands of VEGF-R2 include VEGF-A, VEGF-C, VEGF-D, and VEGF splice isoforms. Ligation of VEGF-R2 with its ligands results in the receptor dimerization and auto-phosphorylation, stimulating endothelial cell proliferation and migration.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 0657, Anti-CD309 (KDR657)

Product attributes

| | |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antibody number | #0657 |
| Antibody reactivity (target) | CD309, Flk-1, KDR3, VEGFR2 |
| Antibody type | Primary |
| Host species | Mouse |
| Clonality | Monoclonal |
| Clone | KDR657 |
| Isotype | IgG1, kappa |
| Molecular weight of antigen | 150-230 kDa |
| Synonyms | CD309; Fetal liver kinase 1 (FLK-1); KDR; Kinase insert domain receptor (a type III receptor tyrosine kinase); KR21; Ly73; Protein tyrosine kinase receptor FLK1; Protein-tyrosine kinase receptor flk-1; Vascular endothelial growth factor receptor 2 |
| Human gene symbol | KDR |
| Entrez gene ID | 3791 |
| SwissProt | P35968 |
| Unigene | 479756 |
| Immunogen | Recombinant human VEGF-R2 protein |
| Antibody target cellular localization | Plasma membrane |
| Species reactivity | Human |
| Antibody application notes | For coating for ELISA, order Ab without BSA. Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Optimal dilution and staining procedure for a specific application should be determined by user. Recommended starting concentrations for titration are 1-2 ug/mL for most applications, or 1 ug/million cells/100 uL for flow cytometry |
| Positive control | HUVEC cells. Human lymph nodes and tonsils. |
| Shipping condition | Room temperature |
| Storage Conditions | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C |
| Shelf life | Guaranteed for at least 24 months from date of receipt when stored as recommended |
| Regulatory status | For research use only (RUO) |
| Antibody/conjugate formulation | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide |
| Antibody research areas | Angiogenesis, Cancer |
| Product origin | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot. |
| Cell/tissue expression | Endothelial cells |

| Antibody # prefix | Conjugation | Ex/Em (nm) | Laser line | Detection channel | Dye Features |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04 | CF®405S | 404/431 | 405 | DAPI (microscopy), AF405 | CF®405S Features |
| BNC88 | CF®488A | 490/515 | 488 | GFP, FITC | CF®488A Features |
| BNC68 | CF®568 | 562/583 | 532, 561 | RFP, TRITC | CF®568 Features |
| BNC94 | CF®594 | 593/614 | 561 | Texas Red® | CF®594 Features |
| BNC40 | CF®640R | 642/662 | 633-640 | Cy®5 | CF®640R Features |
| BNC47 | CF®647 | 650/665 | 633-640 | Cy®5 | CF®647 Features |
| BNC74 | CF®740 | 742/767 | 633-685 | 775/50 | CF®740 Features |
| BNCB | Biotin | N/A | N/A | N/A | |
| BNUB | Purified | N/A | N/A | N/A | |
| BNUM | Purified, BSA-free | N/A | N/A | N/A | |

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References

Zola H, et al. 2007. Leukocyte and Stromal Cell Molecules: The CD Markers Wiley-Liss A John Wiley & Sons Inc, Publication. | Ferrara N and Gerber HP. 2002. Acta.Haematol. 106:148. | Murohara T, et al. 1998. Circulation. 97:99

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