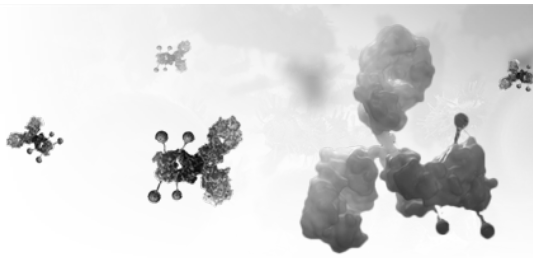

Human Anti-Human VEGFR2 (Ramucirumab) Monoclonal Antibody, clone Ramucirumab [Biosimilar] (CABT-Z696H)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects human VEGFR2. This non-therapeutic antibody uses the same variable region sequence as the therapeutic antibody Ramucirumab.
Immunogen	Human VEGFR2.
Isotype	IgG1
Source/Host	Human
Species Reactivity	Human
Clone	Ramucirumab
Purification	Protein A or G purified
Conjugate	Functional Grade
Applications	FA
Format	Liquid
Concentration	Lot specific
Size	5 mg
Buffer	0.01 M phosphate buffered saline (PBS) pH 7.2, 150 mM NaCl with no carrier protein, potassium or preservatives added. BSA and Azide free. Endotoxin Level ≤ 0.75 EU/mg as determined by the LAL method

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Preservative	None
Storage	Store at 2-8℃ for short term; -80℃ for long term. Avoid freeze / thaw cycle.
Ship	Wet ice

BACKGROUND

Introduction	VEGFR is a tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFC and VEGFD. It plays an essential role in the regulation of angiogenesis, vascular development, vascular permeability, and embryonic hematopoiesis. It promotes proliferation, survival, migration and differentiation of endothelial cells. It also promotes reorganization of the actin cytoskeleton. Isoforms lacking a transmembrane domain, such as isoform 2 and isoform 3, may function as decoy receptors for VEGFA, VEGFC and/or VEGFD. Isoform 2 plays an important role as negative regulator of VEGFA- and VEGFC-mediated lymphangiogenesis by limiting the amount of free VEGFA and/or VEGFC and preventing their binding to FLT4. Modulates FLT1 and FLT4 signaling by forming heterodimers. Binding of vascular growth factors to isoform 1 leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate and the activation of protein kinase C. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, reorganization of the actin cytoskeleton and activation of PTK2/FAK1. Required for VEGFA-mediated induction of NOS2 and NOS3, leading to the production of the signaling molecule nitric oxide (NO) by endothelial cells. Phosphorylates PLCG1. Promotes phosphorylation of FYN, NCK1, NOS3, PIK3R1, PTK2/FAK1 and SRC.
Keywords	KDR;kinase insert domain receptor (a type III receptor tyrosine kinase);vascular endothelial growth factor receptor 2;CD309;FLK1;VEGFR

GENE INFORMATION

Gene Name	KDR
Entrez Gene ID	3791
UniProt ID	P35968

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