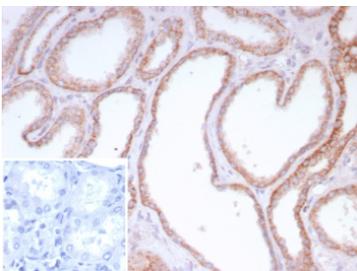


## CD202b Antibody / TIE2 [clone TEK/9411] (V6009)

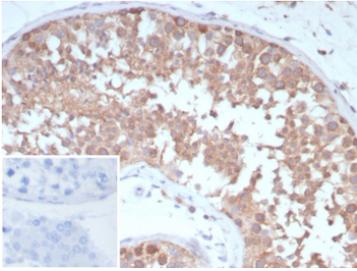
Catalog No.	Formulation	Size
V6009-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6009-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6009SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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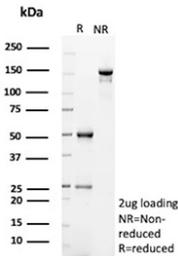
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG1, kappa
<b>Clone Name</b>	TEK/9411
<b>UniProt</b>	Q02763
<b>Localization</b>	Cell membrane, Cytoplasm, Secreted
<b>Applications</b>	Immunohistochemistry (FFPE) : 1-2ug/ml
<b>Limitations</b>	This CD202b/TIE2 antibody is available for research use only.



Immunohistochemistry analysis of CD202b / TIE2 antibody in human renal cell carcinoma tissue (clone TEK/9411). FFPE human renal cell carcinoma sections show HRP-DAB brown membranous and cytoplasmic staining outlining vascular endothelial cells within tumor-associated microvessels, consistent with TEK receptor tyrosine kinase localization. Tumor epithelial cells demonstrate minimal to weak staining compared to endothelial structures. The inset shows PBS used in place of primary antibody as a secondary antibody negative control, confirming absence of specific brown signal. Heat induced epitope retrieval was performed in 10 mM Tris with 1 mM EDTA, pH 9.0, by heating tissue sections at 95°C for 45 minutes followed by cooling at room temperature for 20 minutes prior to antibody incubation.



Immunohistochemistry analysis of CD202b / TIE2 antibody in human testis tissue (clone TEK/9411). FFPE human testis sections demonstrate HRP-DAB brown cytoplasmic and membranous staining in cells within seminiferous tubules, consistent with TEK receptor tyrosine kinase expression in vascular and interstitial compartments. Endothelial cells associated with microvasculature show distinct membranous brown chromogenic signal, while surrounding stromal elements display minimal staining. The inset shows PBS used in place of primary antibody as a secondary antibody negative control, confirming absence of specific brown signal. Heat induced epitope retrieval was performed in 10 mM Tris with 1 mM EDTA, pH 9.0, by heating tissue sections at 95°C for 45 minutes followed by cooling at room temperature for 20 minutes prior to antibody incubation.



SDS-PAGE Analysis of CD202b/TIE2 antibody (TEK/9411). Confirmation of Purity and Integrity of Antibody.

## Description

CD202b antibody, also known as TIE2 antibody, recognizes a receptor tyrosine kinase encoded by the TEK gene. This protein is widely referred to as TIE2, TEK receptor tyrosine kinase, and Tunica interna endothelial cell kinase in the literature. CD202b is predominantly expressed on vascular endothelial cells, where it plays a critical role in angiogenesis, vascular maturation, and endothelial cell survival.

CD202b belongs to the receptor tyrosine kinase family and contains multiple extracellular immunoglobulin-like domains, epidermal growth factor-like repeats, fibronectin type III domains, a single transmembrane region, and an intracellular kinase domain. Upon binding its ligands, Angiopoietin-1 and Angiopoietin-2, CD202b undergoes dimerization and autophosphorylation, activating downstream signaling pathways including PI3K-AKT and MAPK. These signaling cascades regulate endothelial quiescence, vascular permeability, and vessel stabilization.

During embryonic development, CD202b signaling is essential for blood vessel formation and remodeling. In adult tissues, it maintains endothelial integrity and supports vascular homeostasis. Dysregulation of TIE2 signaling contributes to pathological angiogenesis observed in solid tumors, inflammatory diseases, and retinal vascular disorders. Activating mutations in the TEK gene have been identified in inherited venous malformations, further emphasizing its importance in vascular biology.

CD202b is primarily localized to the plasma membrane of endothelial cells, with activated receptor complexes undergoing internalization and cytoplasmic signaling. Because of its endothelial-restricted expression profile, CD202b antibody is commonly used in research applications to evaluate vascular structures and angiogenic signaling pathways. A CD202b antibody can be used to detect TIE2 expression in endothelial biology, cancer research, and angiogenesis studies.

## Application Notes

Optimal dilution of the CD202b/TIE2 antibody should be determined by the researcher.

## Immunogen

A recombinant fragment (around amino acids 700-1000) of human TEK protein (exact sequence is proprietary) was used as the immunogen for the CD202b/TIE2 antibody.

## Storage

CD202b/TIE2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.