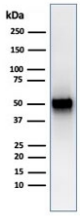
PD-ECGF Antibody / Angiogenesis and Endothelial Growth Factor Marker [clone rTYMP/3444] (V8507)

Catalog No.	Formulation	Size
V8507-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8507-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8507SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

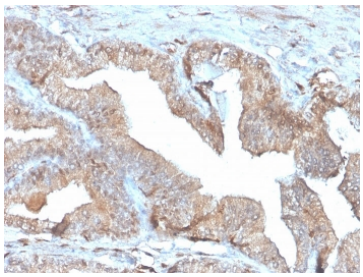
Recombinant MOUSE MONOCLONAL

Bulk quote request

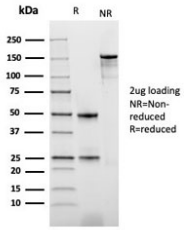
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rTYMP/3444
Purity	Protein G affinity chromatography
UniProt	P19971
Localization	Cytoplasmic, nuclear
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT Western blot: 1-2ug/ml
Limitations	This PD-ECGF Antibody / Angiogenesis and Endothelial Growth Factor Marker is available for research use only.



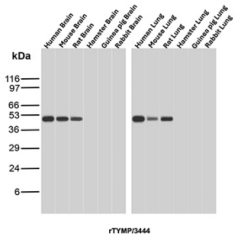
PD-ECGF Antibody Spleen WB. Western blot analysis of human spleen tissue lysate using PD-ECGF antibody detecting thymidine phosphorylase (TYMP), clone rTYMP/3444. A band is detected at approximately 50-55 kDa, consistent with the predicted molecular weight of TYMP. The observed signal in lymphoid tissue aligns with expression of PD-ECGF as a cytosolic enzyme and angiogenesis-associated factor involved in nucleotide metabolism and vascular signaling.



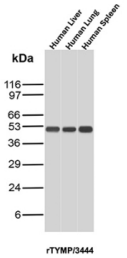
PD-ECGF Antibody Placenta IHC. Immunohistochemistry analysis of FFPE human placenta tissue stained with PD-ECGF antibody detecting thymidine phosphorylase (TYMP), clone rTYMP/3444. Trophoblastic and epithelial cell layers show cytoplasmic staining with moderate to strong intensity, consistent with expression of PD-ECGF as a cytosolic enzyme and angiogenesis-associated factor involved in vascular development and tissue remodeling. The staining highlights placental structures associated with active vascular exchange, while surrounding stromal regions show comparatively lower signal. Hematoxylin counterstain highlights nuclei in blue. HIER: boil tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant PD-ECGF antibody (clone rTYMP/3444) as confirmation of integrity and purity.



PD-ECGF Antibody Multi-Species Brain and Lung WB. Western blot analysis of brain and lung tissue lysates from multiple species using PD-ECGF antibody detecting thymidine phosphorylase (TYMP), clone rTYMP/3444. Brain panel includes human, mouse, rat, hamster, guinea pig, and rabbit samples, while lung panel includes human, mouse, rat, hamster, guinea pig, and rabbit samples. A band is detected at approximately 45-55 kDa across species, consistent with the predicted molecular weight of TYMP. The conserved detection pattern supports cross-species expression of this enzyme, which functions in thymidine metabolism and is also associated with angiogenic activity in tissues.



PD-ECGF Antibody Human Tissue WB. Western blot analysis of human liver, human lung, and human spleen lysates using PD-ECGF antibody detecting thymidine phosphorylase (TYMP), clone rTYMP/3444. A band is detected at approximately 45-55 kDa in all three tissues, consistent with the predicted molecular weight of TYMP. The observed pattern reflects expression of this enzyme across multiple tissue types, aligning with its roles in thymidine metabolism and angiogenesis-associated signaling.

Description

Platelet-derived endothelial cell growth factor (PD-ECGF), also known as thymidine phosphorylase (TYMP), is a multifunctional protein that links nucleotide metabolism with angiogenic signaling. PD-ECGF was originally identified based on its ability to stimulate endothelial cell migration and proliferation, and it is now recognized as the enzymatic protein TYMP, highlighting its dual role as both a metabolic enzyme and a pro-angiogenic factor. PD-ECGF Antibody, clone rTYMP/3444, is a recombinant monoclonal antibody developed to detect this protein in studies of vascular biology, tumor progression, and metabolic regulation.

As an enzyme, TYMP catalyzes the reversible conversion of thymidine into thymine and deoxyribose-1-phosphate, contributing to the pyrimidine salvage pathway and supporting nucleotide recycling in proliferating cells. This function is particularly relevant in rapidly dividing tissues and tumors, where efficient nucleoside metabolism is required to sustain DNA synthesis and cellular growth. However, the biological significance of PD-ECGF extends beyond its enzymatic activity.

PD-ECGF promotes angiogenesis through mechanisms that are independent of its catalytic function, enhancing

endothelial cell chemotaxis, survival, and vascular network formation. Increased expression of PD-ECGF has been associated with elevated microvessel density in tumors, reflecting its role in supporting neovascularization. This angiogenic activity contributes to tumor growth by facilitating oxygen and nutrient delivery, as well as by influencing the tumor microenvironment through interactions with stromal and immune cells.

In tissues, PD-ECGF is expressed in endothelial cells, macrophages, fibroblasts, and tumor epithelial cells, where it localizes predominantly to the cytoplasm in line with its enzymatic role. Its expression is often upregulated under hypoxic conditions and in response to inflammatory signaling, further linking PD-ECGF to adaptive tissue responses and pathological remodeling. These features make it a valuable marker for studying both vascular biology and disease-associated changes in tissue architecture.

The dual identity of PD-ECGF as both a metabolic enzyme and an angiogenic factor distinguishes it from many other growth-associated proteins. Detection of PD-ECGF expression provides insight into the intersection of metabolism, vascular signaling, and tumor biology, supporting the use of a PD-ECGF Antibody in investigations of angiogenesis, cancer progression, and tissue remodeling processes.

Explore our Thymidine Phosphorylase Antibody - Angiogenesis and Nucleotide Metabolism Marker (TYMP/2890R) page for a broader view of TYMP expression in metabolism and tumor-associated angiogenesis.

Application Notes

Optimal dilution of the PD-ECGF Antibody / Angiogenesis and Endothelial Growth Factor Marker should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the recombinant PD-ECGF antibody.

Storage

Store the PD-ECGF antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

PD-ECGF antibody, TYMP antibody, Thymidine phosphorylase antibody, Platelet derived endothelial cell growth factor antibody, Gliostatin antibody, clone rTYMP/3444 antibody

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