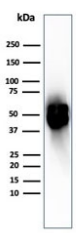
# Thymidine Phosphorylase Antibody / Angiogenesis and Metabolic Enzyme Marker [clone TYMP/2890R] (V3978)

| Catalog No. | Formulation | Size |
|---|---|---|
| V3978-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V3978-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V3978SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

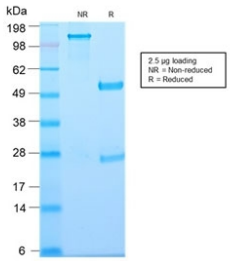
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

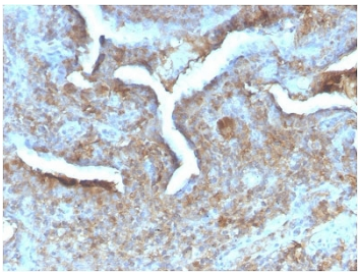
| | |
|---|---|
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | TYMP/2890R |
| **Purity** | Protein A affinity chromatography |
| **UniProt** | P19971 |
| **Localization** | Cytoplasmic, nuclear |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT<br>Western Blot : 1-2ug/ml |
| **Limitations** | This Thymidine Phosphorylase Antibody / Angiogenesis and Metabolic Enzyme Marker is available for research use only. |




Thymidine Phosphorylase Antibody Spleen WB. Western blot analysis of human spleen tissue lysate using Thymidine Phosphorylase antibody detecting TYMP. A band is detected at approximately 50-55 kDa, consistent with the predicted molecular weight of TYMP. The observed signal aligns with expression of this cytosolic enzyme in lymphoid-rich tissue, supporting its role in nucleotide metabolism and angiogenesis-associated biological processes.




SDS-PAGE analysis of purified, BSA-free recombinant Thymidine Phosphorylase antibody (clone TYMP/2890R) as confirmation of integrity and purity.



Thymidine Phosphorylase Antibody Prostate Carcinoma IHC. Immunohistochemistry analysis of FFPE human prostate carcinoma tissue stained with Thymidine Phosphorylase antibody detecting TYMP, clone TYMP/2890R. Tumor epithelial cells show cytoplasmic staining with moderate intensity, consistent with localization of TYMP as a cytosolic enzyme involved in nucleotide metabolism and angiogenesis-associated processes. The staining highlights malignant glandular structures, while surrounding stromal regions show comparatively reduced signal. Hematoxylin counterstain highlights nuclei in blue. HIER: boil tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min and allow to cool before testing.

## Description

Thymidine phosphorylase (TYMP), also known as platelet-derived endothelial cell growth factor (PD-ECGF), is a cytosolic enzyme that catalyzes the reversible phosphorylation of thymidine to thymine and deoxyribose-1-phosphate. In addition to its metabolic role in nucleotide salvage pathways, TYMP has been extensively studied for its involvement in angiogenesis and tissue remodeling. Thymidine Phosphorylase Antibody, clone TYMP/2890R, is a recombinant rabbit monoclonal antibody designed to detect this multifunctional enzyme across a variety of biological contexts.

TYMP plays a key role in pyrimidine metabolism, contributing to the maintenance of nucleotide pools required for DNA synthesis and repair. This enzymatic function is particularly important in proliferating cells, where efficient recycling of nucleosides supports cellular replication. Beyond metabolism, TYMP exerts pro-angiogenic activity through mechanisms that are independent of its catalytic function, influencing endothelial cell migration and vascular formation.

In tissues, TYMP is expressed in a wide range of cell types, including endothelial cells, macrophages, stromal cells, and epithelial cells. Its expression is often elevated in tumors, where it contributes to angiogenesis and supports tumor growth and survival by promoting blood vessel formation. Increased TYMP levels have been reported in multiple cancers, including colorectal, gastric, breast, and lung carcinomas, where it is associated with enhanced vascularization and tumor progression.

At the cellular level, TYMP is primarily localized to the cytoplasm, consistent with its enzymatic function in nucleotide metabolism. However, its angiogenic activity has led to its classification as a growth factor-like protein under the name PD-ECGF. This dual identity links metabolic pathways with vascular biology, making TYMP a valuable marker for studies of tumor microenvironment interactions, hypoxia responses, and angiogenic signaling.

The combination of metabolic and pro-angiogenic functions distinguishes TYMP from many other enzymes involved in nucleotide metabolism. Detection of TYMP expression provides insight into both cellular proliferation and vascular dynamics, supporting the use of a Thymidine Phosphorylase Antibody in investigations of cancer biology, tissue remodeling, and metabolic regulation.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

## Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and

substrates may require the Thymidine Phosphorylase Antibody / Angiogenesis and Metabolic Enzyme Marker to be titered up or down for optimal performance.

## Immunogen

Human recombinant full length protein was used as the immunogen for this recombinant Thymidine Phosphorylase antibody.

## Storage

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

## Alternate Names

Thymidine phosphorylase antibody, TYMP antibody, Platelet derived endothelial cell growth factor antibody, PD-ECGF antibody, Gliostatin antibody, clone TYMP/2890R antibody