

DESCRIPTION

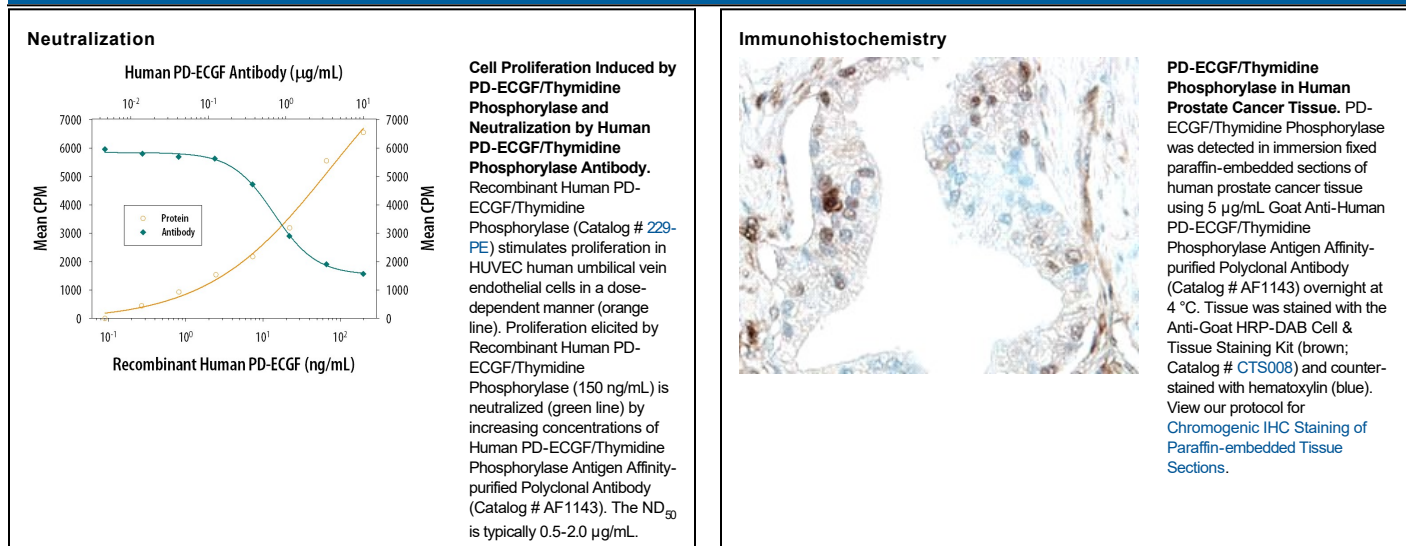
Species Reactivity	Human
Specificity	Detects human PD-ECGF/Thymidine Phosphorylase in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human PD-ECGF/Thymidine Phosphorylase Ala11-Gln482 Accession # P19971
Endotoxin Level	<0.01 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human PD-ECGF/Thymidine Phosphorylase (Catalog # 229-PE)
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize PD-ECGF/Thymidine Phosphorylase-induced proliferation in HUVEC human umbilical vein endothelial cells. Usuki, K. <i>et al.</i> (1990) <i>Cell Regulation</i> 1:577. The Neutralization Dose (ND ₅₀) is typically 0.5-2.0 µg/mL in the presence of 150 ng/mL Recombinant Human PD-ECGF/Thymidine Phosphorylase.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

PD-ECGF, also known as TPase and gliostatin, is produced by placenta, platelets, liver, lung, spleen, lymph nodes, and peripheral lymphocytes. It is overexpressed by many tumors in response to chemical or physical stress. PD-ECGF promotes endothelial cell proliferation and chemotaxis and promotes angiogenesis. PD-ECGF is a key enzyme in the pyrimidine nucleoside salvage pathway. It also metabolizes and inactivates chemotherapeutic drugs such as 5-fluorouracil and its derivatives. The human PD-ECGF cDNA encodes a 482 amino acid (aa) polypeptide with a 10 aa propeptide. The protein is localized mostly within the producer cells. N-terminal truncation, resulting in proteins lacking 10 aa and 6 aa, has been observed in PD-ECGF purified from platelets and placenta, respectively. In solution, PD-ECGF exists as a non-disulfide linked homodimer. The latter protein was purified from quiescent astrocytes and described as an astrocyte and astrocytoma cell growth inhibitor based on its ability to inhibit ³H-thymidine incorporation.

References:

1. Haraguchi, M. *et al.* (1994) *Nature* **368**:198.
2. Toi, M. *et al.* (2005) *Lancet Oncol.* **6**:158.
3. Akiyama, S. *et al.* (2004) *Canc. Sci.* **95**:851.