

Product Specification Sheet

**Human Thymidine phosphorylase (TP/PD-ECGF) Antibodies**

**Cat #** THP11-M      Mouse Monoclonal Anti-Human Thymidine phosphorylase (TP) IgG # 1      **SIZE:** 100 ug  
**FORM:** Soln      Lyophilized

Platelet-derived endothelial growth factor (PD-ECGF), same as thymidine phosphorylase (TP; EC number 2.4.2.4) or gliostatin. Human TP is 482 aa (mature chain 11-482 aa; chromosome 22q13.32) dimeric protein. In the presence of inorganic orthophosphate, it catalyses the reversible phospholytic cleavage of thymidine and deoxyuridine to their corresponding bases and 2-deoxyribose-1-phosphate. It is both chemotactic and mitogenic for endothelial cells and a non-heparin binding angiogenic factor present in platelets. It is also involved in transformation of fluoropyrimidines, cytotoxic agents used in the treatment of a variety of malignancies, into active cytotoxic metabolites.

TP may have a role in maintaining the integrity of the blood vessels. It has growth promoting activity on endothelial cells, angiogenic activity in vivo and chemotactic activity on endothelial cells in vitro. Defects in ECGF1 are the cause of mitochondrial neurogastrointestinal encephalomyopathy (MNGIE); also known as myoneurogastrointestinal encephalomyopathy. MNGIE is an autosomal recessive disease associated with multiple deletions of skeletal muscle mitochondrial DNA (MtDNA).

**Source of Antigen and Antibodies**

Purified **Human recombinant TP protein** was used to immunize Balb/c **mouse**. Splenocytes were fused with Sp2/0 cells. Resulting clone (THP11; **IgG1**), selected for reactivity with TP, was expanded into mice as ascites. Antibody has been purified by Protein A/G column chromatography.

**Recommended 2-ab: Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available)

**Form & Storage**

**Affinity pure IgG**  
100 ug/500 solution      50 ug/250 ul lyophilized powder  
Buffer: PBS+0.2% BSA+0.05% azide  
contains 0.05% sodium azide  
**Reconstitute powder** 500 ul or 250 ul for 50 ug/ml stock.

**Storage**

**Short-term:** unopened, undiluted vials for less than a week at 4oC.  
**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.  
**Shipping:** 4oC for solutions and room temp for powder

**Recommended Usage**

**Western Blotting:** An initial concn. of 1-5 ug/ml is recommended for Western. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions. TP is ~ 55 kda. HUVEC cells or breast carcinoma or other tumor cells can be used as positive controls.

**Histochemistry & Immunofluorescence:** Not tested. An initial concn. 2-20 ug/ml is recommended for IHC.

**Specificity & Cross-reactivity**

THP11-M recognizes human, mouse, and rat TP. Antibody cross-reactivity in various other species has not been studied.

**General References:**

- ishikawa F et al (1989) Nature 338, 557; Koukourakis MI et al (1997) 75, 477; Asai K et al (1992) JBC 267; 20311; Usuli K et al (1992) BBRC 184, 1311;

**\*This product is for In vitro research use only.**

**Material Safety Data.** Unless specified otherwise, the material contains negligible amounts of sodium azide (0.1% ) as preservative. Appropriate care should be exercised when handling and disposing this material.

**Related material available from ADI**

Antibodies to MGMT, hNTH, Ape, mutY, OGG1, XRCC1, DNA Ligase, Polymerase, XPG, ORC1 etc are available.

**Western Blot Recycling Kit (Strips blots in 5 minutes)** and re-use the same blot with multiple antibodies

THP11-M      50426A

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