

## DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human/Mouse/Rat  |
| <b>Specificity</b>        | Detects human, mouse, and rat TPT1/TCTP in Western blots.                                |
| <b>Source</b>             | Monoclonal Mouse IgG Clone # 488411  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                               |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human TPT1/TCTP<br>Met1-Cys172<br>Accession # P13693 |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.                       |

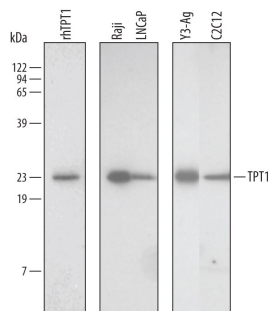
## APPLICATIONS

**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    |
|----------------------------|---------------------------|-----------|
| <b>Western Blot</b>        | 1 µg/mL                   | See Below |
| <b>Immunocytochemistry</b> | 3-25 µg/mL                | See Below |

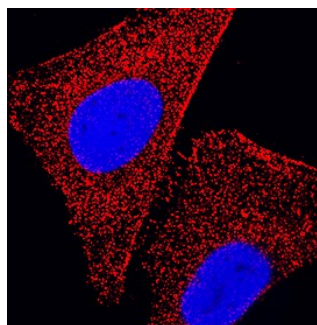
## DATA

### Western Blot



**Detection of Human/Mouse/Rat TPT1/TCTP by Western Blot.** Western blot shows lysates of Raji human Burkitt's lymphoma cell line, LNCaP human prostate cancer cell line, Y3-Ag rat myeloid cell line, and C2C12 mouse myoblast cell line. PVDF membrane was probed with 1 µg/mL Mouse Anti-Human/Mouse/Rat TPT1/TCTP Monoclonal Antibody (Catalog # MAB4648) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). For additional reference, recombinant human TPT1 (5 ng) was included. A specific band for TPT1/TCTP was detected at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 3.

### Immunocytochemistry



**TPT1/TCTP in HeLa Human Cell Line.** TPT1/TCTP was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line cell line using Mouse Anti-Human/Mouse/Rat TPT1/TCTP Monoclonal Antibody (Catalog # MAB4648) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

## PREPARATION AND STORAGE

|                                |   |
|--------------------------------|---|
| <b>Reconstitution</b>          | Reconstitute at 0.5 mg/mL in sterile PBS.   |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.   |
| <b>Stability &amp; Storage</b> | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

## BACKGROUND

TPT1 (translationally controlled tumor protein 1; also TCTP, HRF and fortilin) is a 23 kDa member of the TCTP family of calcium-binding proteins. It is widely expressed (but not in kidney), and apparently serves as a transcriptional activator, calcium transporter, histamine inducer and antiapoptotic, caspase-3 inhibitor. Human TPT1 is 172 amino acids (aa) in length, with multiple potential splice variants. There is an alternate start site at Met35 that may be accompanied by a deletion of aa 99-172. In addition, there may be either a 25 aa or 16 aa C-terminal extension after Cys172. Over aa 1-172, human TPT1 is 96% aa identical to mouse TPT1.