

Product Information



TP Receptor (mouse) Polyclonal Antibody

Item No. 101882 • Lot No. XXXXX

Contents:	This vial contains (100-500 µg of affinity-purified IgG, <i>lot specific</i>) in 500 µl TBS, pH 7.4, containing 0.1% BSA with 0.02% sodium azide.
Host:	Rabbit
Antigen:	Mouse thromboxane receptor amino acids 275-289 (third extracellular domain) Antigen alignment with other known species sequences: Mouse VMSFSGQLLRATEHQ Rat VMSPSGQLLRtTErQ African green monkey aMSpSGQLsRATEqe Human aMSpaGQLsRtTEke Cow aMSptGQLsRI TErQ
Cross-reactivity:	(+) Mouse, rat, human, Cos-7 (African green monkey), and bovine TP receptor (able to detect both TP _A and TP _B isoforms)
Storage:	≥1 year at -20°C
Applications:	Recommended starting dilutions: western blotting: <i>lot specific</i> µg/ml; immunohistochemistry (formalin-fixed paraffin-embedded sections): <i>lot specific</i> µg/ml; other applications were not attempted and therefore optimal working dilutions should be determined empirically.
Concentration:	Varies by lot, from 0.2-1.0 mg/ml (100-500 µg/vial). Always 100 µl final working volume for western blotting.

Thromboxane A₂ (TXA₂) is a potent vasoconstrictor and activator of platelet aggregation. The short half-life of TXA₂ ensures local action whether generated by vascular endothelial cells or by platelets and confers physiologically beneficial or deleterious effects under inflammatory situations.^{1,2} TXA₂ elicits its effects *via* a 7-transmembrane domain G protein-coupled receptor, the TP receptor.³ This receptor can also bind prostaglandin H₂ and isoprostanes and was first cloned from human placenta and the platelet-like MEG-01 cell line.^{4,5} The TP receptor is highly expressed in platelets and is relatively less abundant in tissues such as lung, kidney, brain, spleen, thymus, monocytes, uterus, and placenta.⁶⁻⁹ The apparent molecular weight for TP receptors has been reported from 37 kDa to 70 kDa, depending on different degrees of glycosylation.⁹⁻¹¹ However, Cayman's antibody consistently detects the TP receptor at 42 kDa in kidney, HepG2, and Cos-7 cell samples.

Immunoperoxidase staining procedure

A. Paraffin sections

1. Deparaffinize sections with xylene or xylene substitute 3 times, 5 minutes each.
2. Rehydrate sections two times with 100% ethanol, 5 minutes each, followed by 95%, 90%, 80%, 70%, 50% ethanol, 5 minutes each.
3. Rinse sections in distilled water for 5 minutes.
4. Block endogenous peroxidase activity with 0.3% H₂O₂ in water (use methanol instead of water in case of strong endogenous peroxidase activity) for 15 minutes.
5. Wash sections 3 times in TBS containing 1% tween 20 (TBST), pH 7.4, 5 minutes each.
6. Incubate sections with 5% normal serum (same species as the host of secondary antibody) for 30 minutes.
7. Rinse sections 3 times with TBST, pH 7.4, 5 minutes each.
8. Incubate sections with X:XXX TP receptor polyclonal antibody (recommended starting dilution; optimal dilution to be determined by end user) overnight at 4°C.
9. Wash sections 3 times in TBST, pH 7.4, 5 minutes each.

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any **obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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10. Incubate sections for 30 minutes with biotinylated secondary antibody, using a dilution as recommended by the manufacturer.
11. Wash sections 3 times in TBST, pH 7.4, 5 minutes each.
12. Incubate sections for 30 minutes with ABC reagent, using a dilution as recommended by provider.
13. Wash sections 3 times in TBST, pH 7.4, 5 minutes each.
14. Incubate sections in peroxidase substrate solution. Check staining under a microscope frequently. When desired staining intensity is achieved, rinse sections thoroughly with distilled water.
15. Counter stain sections if desired. Rinse sections thoroughly after counter stain.
16. Dehydrate sections with 50%, 70%, 80%, 90%, 95%, 100% (2 times) ethanol for 5 minutes each.
17. Clear sections 3 times with xylene or xylene substitute, 5 minutes each.
18. Mount sections with coverslips.

B. Fresh frozen sections

1. After briefly fixing sections with an appropriate fixative (e.g., 10% formaldehyde for two minutes), wash sections 3 times with TBS, pH 7.4, 5 minutes each.
2. Follow steps 4-18 of the procedure recommended for paraffin section.

References

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