

# PRODUCT INFORMATION



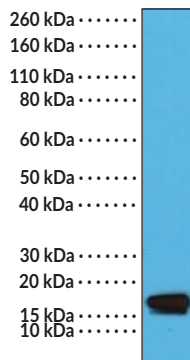
## Stathmin 1 (C-Term) Rabbit Monoclonal Antibody (Clone RM350)

Item No. 32281

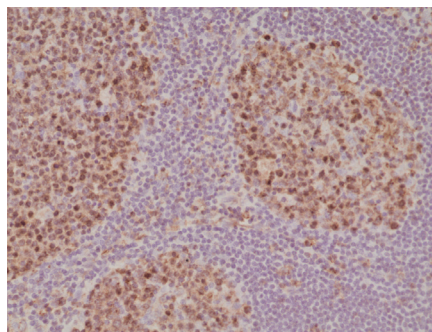
### Overview and Properties

<b>Contents:</b>	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
<b>Synonyms:</b>	Leukemia-associated Phosphoprotein p18, Metablastin, Oncoprotein 18, Op18, STMN1
<b>Immunogen:</b>	Peptide from the C-terminal region of human stathmin 1
<b>Cross Reactivity:</b>	(+) Stathmin 1
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM350
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:2,000-1:5,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



WB of HeLa cell lysates using Stathmin 1 (C-Term) Rabbit Monoclonal Antibody (Clone RM350) at a dilution of 1:5,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using Stathmin 1 (C-Term) Rabbit Monoclonal Antibody (Clone RM350) at a dilution of 1:1,000.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Stathmin 1 is a microtubule-destabilizing phosphoprotein and the founding member of the stathmin family of proteins.<sup>1,2</sup> It is composed of a stathmin-like domain (SLD) that contains an N-terminal domain, a proline-rich domain, and two tubulin-binding repeats, which each bind one tubulin  $\alpha\beta$  heterodimer.<sup>2</sup> Stathmin 1 also contains several phosphorylation sites which, when phosphorylated, negatively regulate its interaction with tubulin. It is ubiquitously expressed, with high levels in the nervous system, and localizes to the cytoplasm. Stathmin 1 binds to tubulin in a phosphorylation-dependent manner and regulates microtubule dynamics by promoting destabilization or preventing polymerization.<sup>2,3</sup> Stathmin 1 is inactivated prior to mitosis and reactivated by dephosphorylation near the end of mitosis.<sup>3</sup> *STMN1*, the gene encoding stathmin, is overexpressed in a variety of cancers and is associated with metastasis and poor prognosis.<sup>1,4</sup> Cayman's Stathmin (C-Term) Rabbit Monoclonal Antibody (Clone RM350) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Belletti, B. and Baldassarre, G. Stathmin: A protein with many tasks. New biomarker and potential target in cancer. *Expert Opin. Ther. Targets* **15(11)**, 1249-1266 (2011).
2. Chauvin, S. and Sobel, A. Neuronal stathmins: A family of phosphoproteins cooperating for neuronal development, plasticity and regeneration. *Prog. Neurobiol.* **126**, 1-18 (2015).
3. Rubin, C.I. and Atweh, G.F. The role of stathmin in the regulation of the cell cycle. *J. Cell. Biochem.* **93(2)**, 242-250 (2004).
4. Biaoxue, R., Hua, L., Wenlong, G., *et al.* Overexpression of stathmin promotes metastasis and growth of malignant solid tumors: A systemic review and meta-analysis. *Oncotarget* **7(48)**, 78994-79007 (2016).

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