

For Research Use Only

# STMN4 Polyclonal antibody

Catalog Number: 12027-1-AP **2 Publications**



## Basic Information

<b>Catalog Number:</b> 12027-1-AP	<b>GenBank Accession Number:</b> BC011520	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 750 µg/ml by Nanodrop and 413 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 81551	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IP 0.5-4.0 ug for IP and 1:500-1:2000 for WB IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>Full Name:</b> stathmin-like 4	
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 216 aa, 25 kDa	
<b>Immunogen Catalog Number:</b> AG2657	<b>Observed MW:</b> 22-30 kDa	

## Applications

<b>Tested Applications:</b> IHC, IP, WB, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> IF, WB	<b>WB:</b> human brain tissue, rat brain tissue
<b>Species Specificity:</b> human, mouse, rat	<b>IP:</b> mouse brain tissue,
<b>Cited Species:</b> mouse	<b>IHC:</b> human gliomas tissue, human brain tissue
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	

## Background Information

RB3 (Stathmin-4), encoded by STMN4 gene, is a neuron-specific homologue of the SCG10/stathmin family proteins, possessing a unique N-terminal membrane-associated domain and the stathmin-like domain at the C terminus, which promotes microtubule (MT) catastrophe and/or tubulin sequestering. Stathmin is a ubiquitous cytosolic phosphoprotein, preferentially expressed in the nervous system, and described as a relay integrating diverse intracellular signaling pathways. RB3 is consistently up-regulated in differentiated neuroblastoma cells, and stable expression of transfected RB3 could induce differentiation, suggesting a role of RB3 during neuroblastoma differentiation. Moreover, increased RB3 is a unique response protein in the stathmin-related proteins following optical nerve axotomy and RB3 may be a critical target for neurodegenerative diseases. STMN4 has 4 isoforms with MW 25, 23, 22 and 19 kDa (refer to UniProt). Another 30 kDa isoform can be found by NCBI Protein Blast. ([https://www.ncbi.nlm.nih.gov/protein/XP\\_005273709](https://www.ncbi.nlm.nih.gov/protein/XP_005273709))

## Notable Publications

Author	Pubmed ID	Journal	Application
Kelsey L Krus	35767949	Cell Rep	WB
Tuan Vo	37127652	Genome Med	IF

## Storage

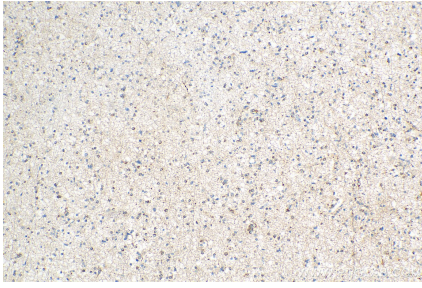
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

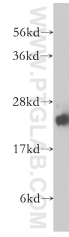
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
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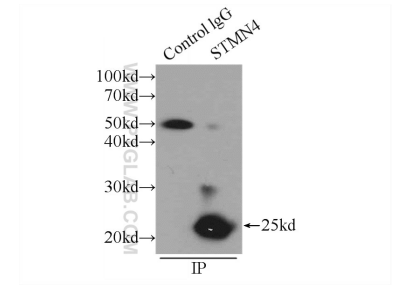
## Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 12027-1-AP (STMN4 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



human brain tissue were subjected to SDS PAGE followed by western blot with 12027-1-AP (STMN4 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP Result of anti-STMN4 (IP:12027-1-AP, 3ug; Detection:12027-1-AP 1:1000) with mouse brain tissue lysate 6000ug.