

For Research Use Only

# PRKAR1A Polyclonal antibody

Catalog Number: 20358-1-AP

4 Publications



## Basic Information

### Catalog Number:

20358-1-AP

### Size:

150ul, Concentration: 1000 ug/ml by Nanodrop and 620 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG14216

### GenBank Accession Number:

BC036285

### GeneID (NCBI):

5573

### UNIPROT ID:

P10644

### Full Name:

protein kinase, cAMP-dependent, regulatory, type I, alpha (tissue specific extinguisher 1)

### Calculated MW:

381 aa, 43 kDa

### Observed MW:

43-45 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:1000-1:6000

IHC: 1:250-1:1000

IF/ICC: 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, ELISA

### Cited Applications:

WB

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse

### Positive Controls:

WB: HeLa cells, mouse brain tissue, rat brain tissue

IHC: mouse testis tissue, human stomach cancer tissue, mouse brain tissue, rat salivary gland tissue

IF/ICC: HeLa cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

PKA is a heterotetramer inactive kinase composed of two regulatory and two catalytic subunits. The regulatory subunits are encoded by four genes (PRKAR1A, PRKAR2A, PRKAR1B, and PRKAR2B). PRKAR1A, a gene coding for the cAMP-dependent protein kinase (PKA) 1 $\alpha$  regulatory subunit, is located on human chromosome 17q22-24. PRKAR1A protein insufficiency and PKA dysregulation have been implicated in various types of disorders, including Albright hereditary osteodystrophy (AHO), pseudohypoparathyroidism (PHP), acrodysostosis (ACRDYS), and Carney complex. PRKAR1A protein expression level was significantly dysregulated in multiple primary carcinomas and distant metastases, such as cardiac myxomas, odontogenic myxomas, anaplastic thyroid carcinomas, breast cancer, pediatric pituitary adenomas, and Schwann cell tumors.

## Notable Publications

Author	Pubmed ID	Journal	Application
Susanne Zellner	33545068	Mol Cell	WB
Chandana Thimme Gowda	40199859	Signal Transduct Target Ther	WB
Wuping Yang	40089779	J Transl Med	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

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

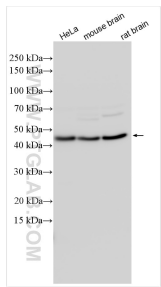
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

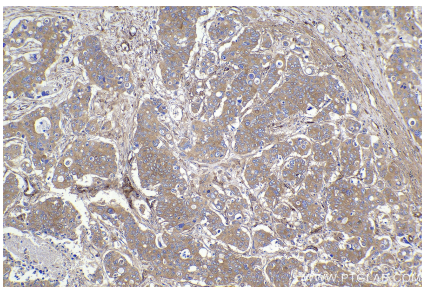
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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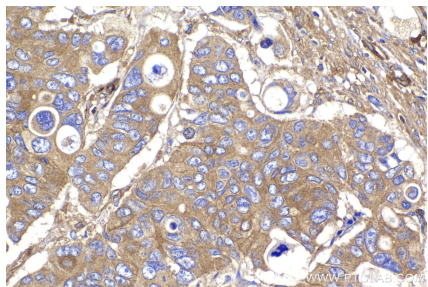
Selected Validation Data



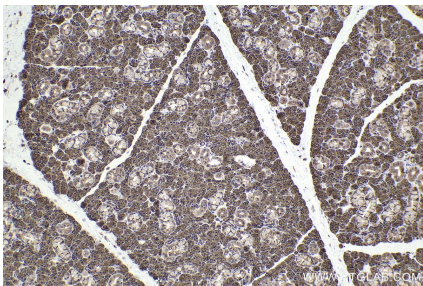
Various lysates were subjected to SDS PAGE followed by western blot with 20358-1-AP (PRKAR1A antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



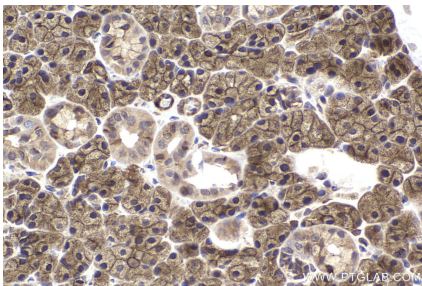
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



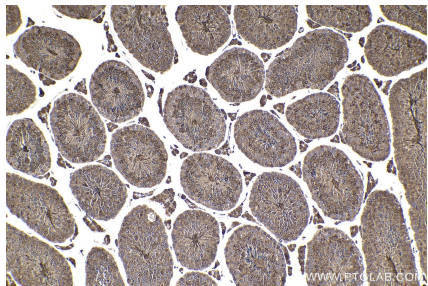
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



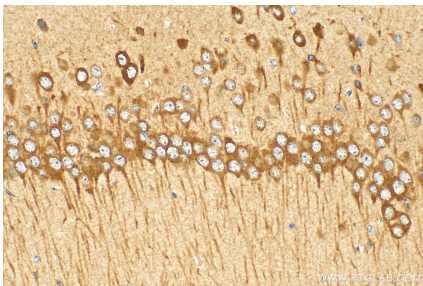
Immunohistochemical analysis of paraffin-embedded rat salivary gland tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



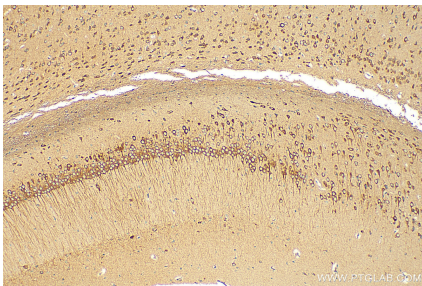
Immunohistochemical analysis of paraffin-embedded rat salivary gland tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



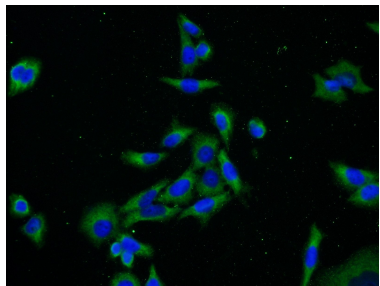
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



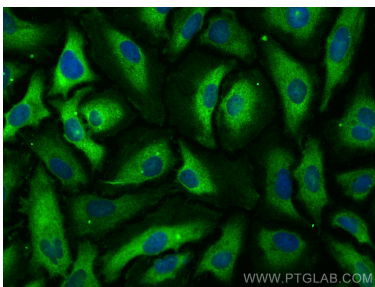
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 20358-1-AP (PRKAR1A antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using 20358-1-AP (PRKAR1A antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol)  
fixed HeLa cells using PRKAR1A antibody (20358-1-  
AP) at dilution of 1:400 and Multi-rAb CoraLite ®  
Plus 488-Goat Anti-Rabbit Recombinant Secondary  
Antibody (H+L) (RGAR002).