For Research Use Only

PRKAR1A Polyclonal antibody

Catalog Number:20358-1-AP 1 Publications

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
20358-1-AP

Size:
1000 μg/ml

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 1:50-1:500
IF/ICC 1:20-1:200

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB

Species Specificity:
human, mouse, rat

Cited Species:
human

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

Positive Controls:

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

IHC : mouse brain tissue,

IF/ICC : HeLa cells,

Background Information

PKA is a heterotetramer inactive kinase composed of two regulatory and two catalytic submits. The regulatory subunits are encoded by four genes (PRKAR1A, PRKAR2A, PRKAR1B, and PRKAR2B). PRKAR1A, a gene coding for the cAMP-dependent protein kinase (PKA) 1α regulatory submit, 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

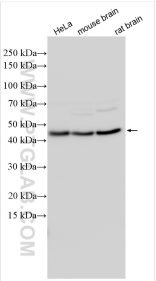
Author	Pubmed ID	Journal	Application
Susanne Zellner	33545068	Mol Cell	WB

Storage

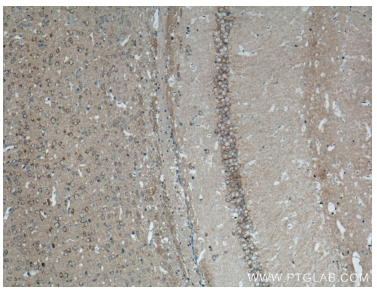
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

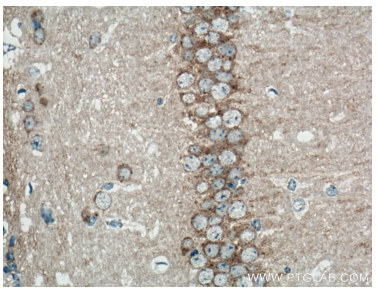
Selected Validation Data



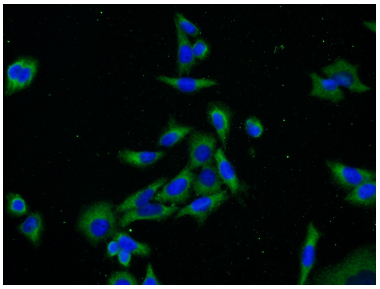
Various lysates were subjected to SDS PAGE followed by western blot with 20358-1-AP (PRKAR1A antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded 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).



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).



Immunofluorescent analysis of (-20℃ 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).