

For Research Use Only

# PARK7/DJ-1 Polyclonal antibody

Catalog Number: 11681-1-AP

Featured Product

21 Publications



## Basic Information

### Catalog Number:

11681-1-AP

### Size:

150ul, Concentration: 1200 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG2287

### GenBank Accession Number:

BC008188

### GeneID (NCBI):

11315

### UNIPROT ID:

Q99497

### Full Name:

Parkinson disease (autosomal recessive, early onset) 7

### Calculated MW:

189 aa, 20 kDa

### Observed MW:

20 kDa, 25 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:2000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:1000-1:4000

IF/ICC 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

**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, Jurkat cells, HEK-293 cells

IP : HeLa cells,

IHC : human gliomas tissue, human liver cancer tissue, human kidney tissue, mouse kidney tissue, rat kidney tissue, rat liver tissue, mouse brain tissue, rat brain tissue

IF/ICC : SH-SY5Y cells,

## Background Information

PARK7, also named as DJ1, belongs to the peptidase C56 family. It protects cells against oxidative stress and cell death. PARK7 plays a role in regulating expression or stability of the mitochondrial uncoupling proteins SLC25A14 and SLC25A27 in dopaminergic neurons of the substantia nigra pars compacta and attenuates the oxidative stress induced by calcium entry into the neurons via L-type channels during pacemaking. It eliminates hydrogen peroxide and protects cells against hydrogen peroxide-induced cell death. PARK7 has cell-growth promoting activity and transforming activity. It may function as a redox-sensitive chaperone. Its precursor undergoes a cleavage of a C-terminal peptide and subsequent activation of protease activity in response to oxidative stress. The amino acid replace at 166 (L → P) reduces PARK7 protein stability and leads to increased degradation. The predicted MW of this protein is 20 kDa, An additional 25 kDa band can be observed due to modification (PMID: 31767755).

## Notable Publications

Author	Pubmed ID	Journal	Application
Salma Akter	30177848	Nat Chem Biol	WB
Jeng-Yuan Shiau	26557148	Evid Based Complement Alternat Med	WB
Koutarou Nakamura	34014921	PLoS Biol	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

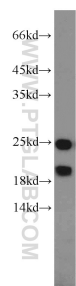
For technical support and original validation data for this product please contact:

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

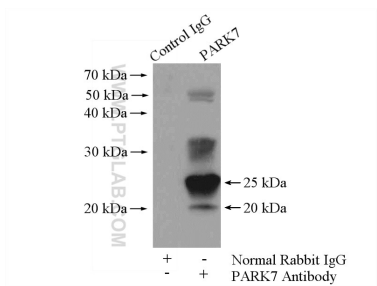
E: proteintech@ptglab.com  
W: ptglab.com

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

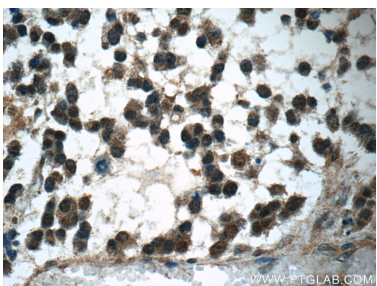
Selected Validation Data



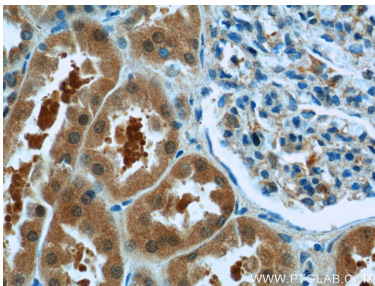
HeLa cells were subjected to SDS PAGE followed by western blot with 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



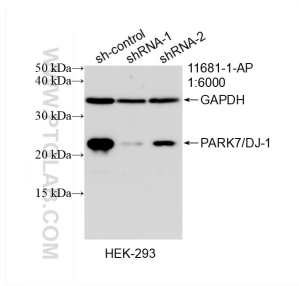
IP result of anti-PARK7/DJ-1 (IP:11681-1-AP, 4ug; Detection:11681-1-AP 1:1000) with HeLa cells lysate 1200ug.



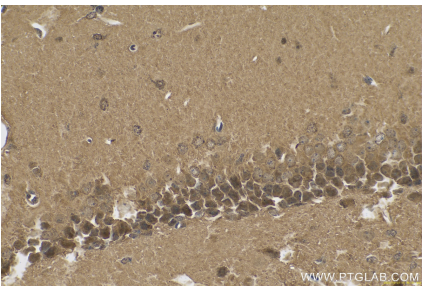
Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 11681-1-AP (PARK7/DJ-1 Antibody) at dilution of 1:50 (under 40x lens).



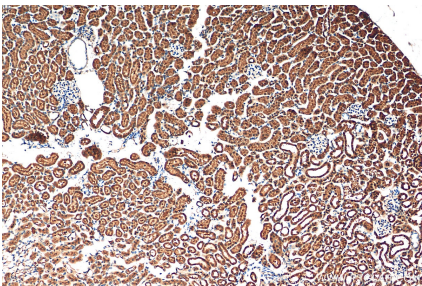
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 11681-1-AP (PARK7/DJ-1 Antibody) at dilution of 1:50 (under 40x lens).



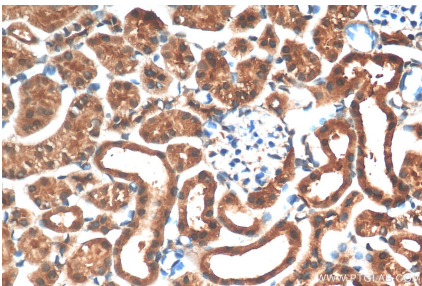
WB result of PARK7/DJ-1 antibody (11681-1-AP; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PARK7/DJ-1 transfected HEK-293 cells.



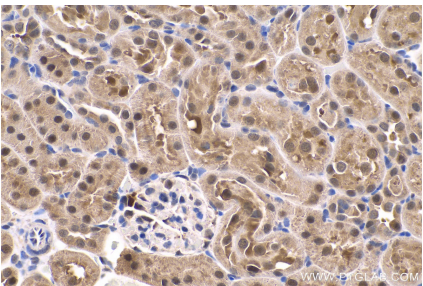
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



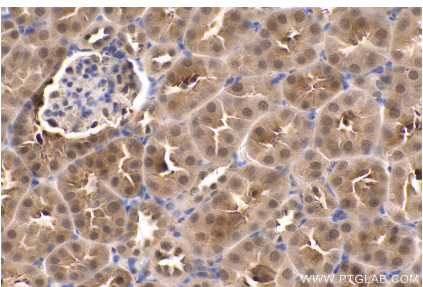
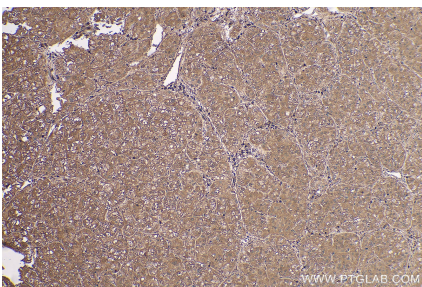
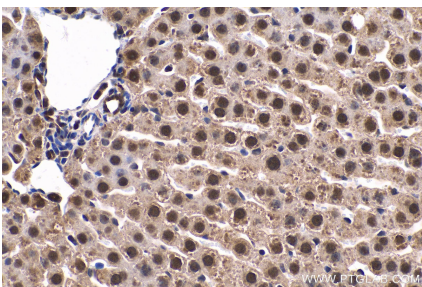
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

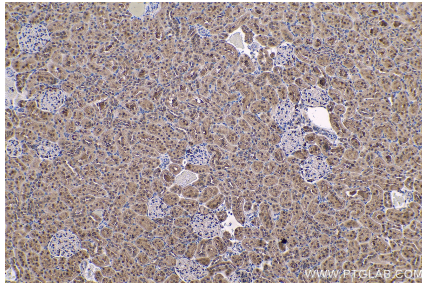


Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

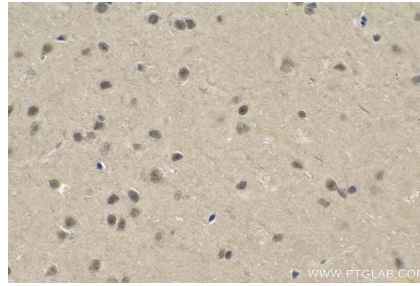




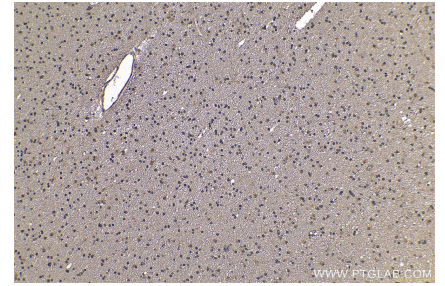
Immunohistochemical analysis of paraffin-embedded rat liver tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



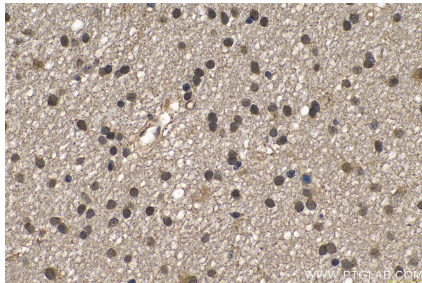
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



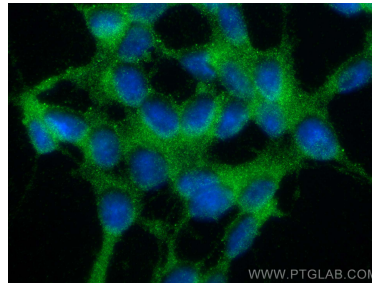
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 11681-1-AP (PARK7/DJ-1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunofluorescent analysis of (-20°C Ethanol) fixed SH-SY5Y cells using PARK7,DJ-1 antibody (11681-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).