

Product datasheet

Anti-PARK7/DJ1 antibody ab226827

4 Images

Overview

<b>Product name</b>	Anti-PARK7/DJ1 antibody
<b>Description</b>	Rabbit polyclonal to PARK7/DJ1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Human <b>Predicted to work with:</b> Mouse, Chicken, Cow, Pig ▲
<b>Immunogen</b>	Synthetic peptide within Human PARK7/DJ1 (N terminal). The exact sequence is proprietary. Database link: <a href="#">Q99497</a>
<b>Positive control</b>	WB: U87-MG, SK-N-SH, IMR32, SK-N-AS, HEK-293T, A431, HeLa and HepG2 cell lysate. IHC: Rat liver tissue.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.025% Proclin Constituents: PBS, 1% BSA, 20% Glycerol
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab226827** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

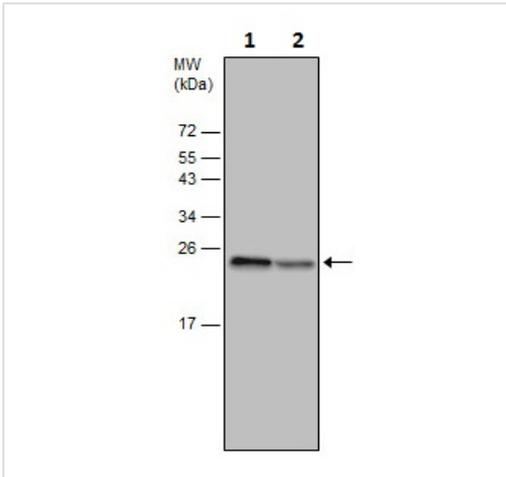
Application	Abreviews	Notes
WB		1/500 - 1/2000. Predicted molecular weight: 20 kDa.

Application	Abreviews	Notes
IHC-P		1/100 - 1/1000.

## Target

<b>Function</b>	Protects cells against oxidative stress and cell death. 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. Eliminates hydrogen peroxide and protects cells against hydrogen peroxide-induced cell death. May act as an atypical peroxiredoxin-like peroxidase that scavenges hydrogen peroxide. Following removal of a C-terminal peptide, displays protease activity and enhanced cytoprotective action against oxidative stress-induced apoptosis. Stabilizes NFE2L2 by preventing its association with KEAP1 and its subsequent ubiquitination. Binds to OTUD7B and inhibits its deubiquitinating activity. Enhances RELA nuclear translocation. Binds to a number of mRNAs containing multiple copies of GG or CC motifs and partially inhibits their translation but dissociates following oxidative stress. Required for correct mitochondrial morphology and function and for autophagy of dysfunctional mitochondria. Regulates astrocyte inflammatory responses. Acts as a positive regulator of androgen receptor-dependent transcription. Prevents aggregation of SNCA. Plays a role in fertilization. Has no proteolytic activity. Has cell-growth promoting activity and transforming activity. May function as a redox-sensitive chaperone.
<b>Tissue specificity</b>	Highly expressed in pancreas, kidney, skeletal muscle, liver, testis and heart. Detected at slightly lower levels in placenta and brain. Detected in astrocytes, Sertoli cells, spermatogonia, spermatids and spermatozoa.
<b>Involvement in disease</b>	Defects in PARK7 are the cause of Parkinson disease type 7 (PARK7) [MIM:606324]. A neurodegenerative disorder characterized by resting tremor, postural tremor, bradykinesia, muscular rigidity, anxiety and psychotic episodes. PARK7 has onset before 40 years, slow progression and initial good response to levodopa. Some patients may show traits reminiscent of amyotrophic lateral sclerosis-parkinsonism/dementia complex (Guam disease).
<b>Sequence similarities</b>	Belongs to the peptidase C56 family.
<b>Post-translational modifications</b>	Sumoylated on Lys-130 by PIAS2 or PIAS4; which is enhanced after ultraviolet irradiation and essential for cell-growth promoting activity and transforming activity. Cys-106 is easily oxidized to sulfinic acid. Undergoes cleavage of a C-terminal peptide and subsequent activation of protease activity in response to oxidative stress.
<b>Cellular localization</b>	Cytoplasm. Nucleus. Mitochondrion. Under normal conditions, located predominantly in the cytoplasm and, to a lesser extent, in the nucleus and mitochondrion. Translocates to the mitochondrion and subsequently to the nucleus in response to oxidative stress and exerts an increased cytoprotective effect against oxidative damage. Detected in tau inclusions in brains from neurodegenerative disease patients.

## Images



Western blot - Anti-PARK7/DJ1 antibody (ab226827)

**All lanes** : Anti-PARK7/DJ1 antibody (ab226827) at 1/20000 dilution

**Lane 1** : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysate

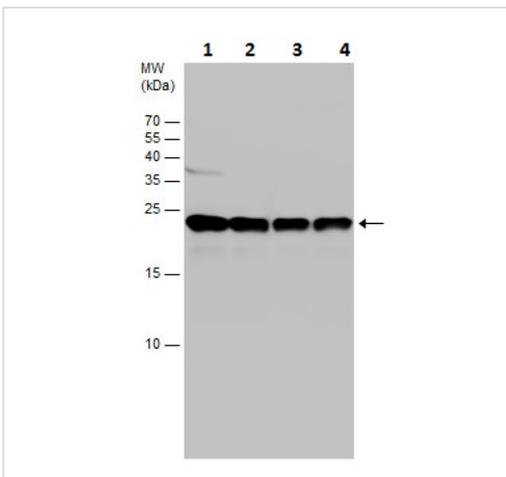
**Lane 2** : HEK-293T transfected with PARK7/DJ1 shRNA cell lysate

Lysates/proteins at 30 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 20 kDa



Western blot - Anti-PARK7/DJ1 antibody (ab226827)

**All lanes** : Anti-PARK7/DJ1 antibody (ab226827) at 1/1000 dilution

**Lane 1** : U-87 MG (human glioblastoma-astrocytoma epithelial cell line) cell lysate

**Lane 2** : SK-N-SH (human neuroblastoma cell line) cell lysate

**Lane 3** : IMR32 cell lysate

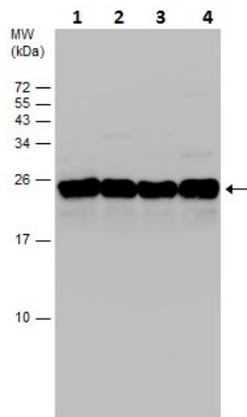
**Lane 4** : SK-N-AS cell lysate

Lysates/proteins at 30 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 20 kDa



Western blot - Anti-PARK7/DJ1 antibody (ab226827)

**All lanes :** Anti-PARK7/DJ1 antibody (ab226827) at 1000  $\mu$ g

**Lane 1 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysate

**Lane 2 :** A431 (human epidermoid carcinoma cell line) cell lysate

**Lane 3 :** HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

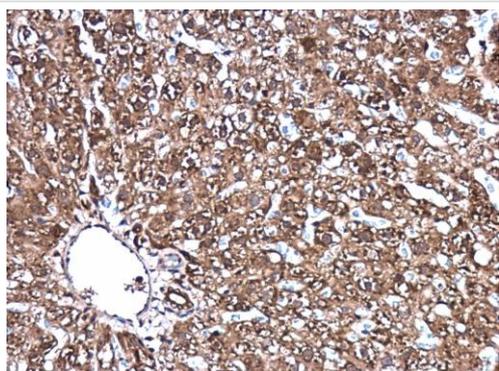
**Lane 4 :** HepG2 (human liver hepatocellular carcinoma cell line) cell lysate

Lysates/proteins at 30  $\mu$ g per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 20 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PARK7/DJ1 antibody (ab226827)

Paraffin-embedded rat liver tissue stained for PARK7/DJ1 using ab226827 at 1/500 dilution in immunohistochemical analysis.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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