# PARK7/DJ1 Recombinant Antibody [SN07-21] - Rat IgG1 (Chimeric)

# HA601677

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| **Product Type:** | Recombinant Chimeric, primary antibodies |
| **Species reactivity:** | Human, Mouse, Rat |
| **Applications:** | WB, IHC-P |
| **Molecular Wt:** | Predicted band size: 20 kDa |
| **Clone number:** | SN07-21 |

**Description:** PARK7/DJ1 is a ubiquitously expressed protein involved in various cellular processes including cell proliferation, RNA-binding, and oxidative stress. The protein has been found to colocalize within a subset of pathologic tau inclusions in a diverse group of neurodegenerative disorders known as tauopathies. Defects in PARK7/DJ1 are the cause of autosomal recessive early-onset Parkinson's disease 7 (PARK7). Parkinson's disease (PD) is a complex, multifactorial disorder that typically manifests after the age of 50 years. The disease is characterized by bradykinesia, resting tremor, muscular rigidity and postural instability. The pathology involves the loss of dopaminergic neurons in the substantia nigra and the presence of Lewy bodies (intraneuronal accumulations of aggregated proteins), in surviving neurons in various areas of the brain. PARK7 is characterized by onset before 40 years and slow progression. It has also been suggested that PARK7/DJ1 is a mitogen dependent oncogene product involved in Ras related signal transduction pathways.

**Immunogen:** Synthetic peptide within Human PARK7 aa 11-60 / 189.

**Positive control:** SH-SY5Y (Human neuroblastoma cell) cell lysate, NIH/3T3 (Mouse fibroblast) cell lysate, C6 (Rat glioma cell) cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate.

**Subcellular location:** Cell membrane, Cytoplasm, Endoplasmic reticulum, Membrane, Mitochondrion, Nucleus.

**Database links:** SwissProt: Q99497 Human | Q99LX0 Mouse | O88767 Rat

**Recommended Dilutions:**

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| **WB** | 1:5,000 |
| **IHC-P** | 1:1,000 |

**Storage Buffer:** 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

**Storage Instruction:** Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

**Purity:** Protein A affinity purified.

## Images

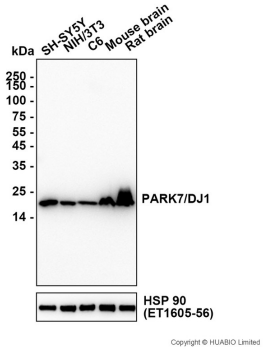


**Fig1:** Western blot analysis of PARK7/DJ1 on different lysates with Rat anti-PARK7/DJ1 antibody (HA601677) at 1/5,000 dilution.

Lane 1: SH-SY5Y (Human neuroblastoma cell) cell lysate
Lane 2: NIH/3T3 (Mouse fibroblast) cell lysate
Lane 3: C6 (Rat glioma cell) cell lysate
Lane 4: Mouse brain tissue lysate
Lane 5: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.
Exposure time: 25 seconds; ECL: K1801

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: HA601677, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C
Secondary antibody: Goat anti-Rat IgG-HRP (HA1023), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 20 kDa
Observed band size: 20 kDa

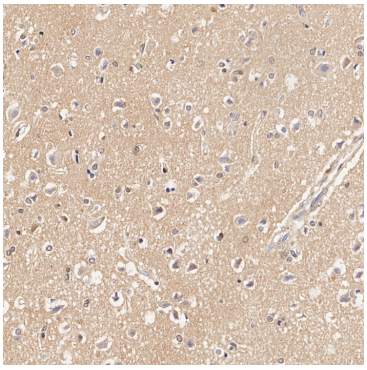

**Fig2:** Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Brain
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% $H_2O_2$, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601677, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1123, 20 minutes at room temperature.

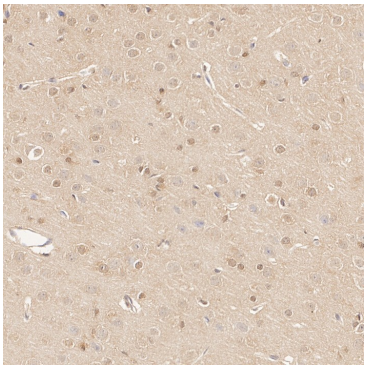

**Fig3:** Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Brain
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H O , 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601677, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1123, 20 minutes at room temperature.

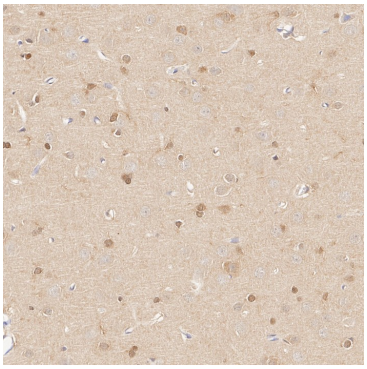

**Fig4:** Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Brain
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H O , 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601677, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1123, 20 minutes at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References


1. Marín-Buera L et al. Differential proteomic profiling unveils new molecular mechanisms associated with mitochondrial complex III deficiency. J Proteomics 113:38-56 (2015).
2. Bifsha P et al. Rgs6 is required for adult maintenance of dopaminergic neurons in the ventral substantia nigra. PLoS Genet 10:e1004863 (2014).