

## HA610449



|                            |                                                   |
|----------------------------|---------------------------------------------------|
| <b>Product Type:</b>       | Recombinant Chimeric Antibody, primary antibodies |
| <b>Species reactivity:</b> | Human, Mouse, Rat                                 |
| <b>Applications:</b>       | WB, IF-Cell, IHC-P                                |
| <b>Molecular Wt:</b>       | Predicted band size: 52 kDa                       |
| <b>Clone number:</b>       | PSH08-11                                          |

**Description:** Parkin is a 465-amino acid residue E3 ubiquitin ligase, a protein that in humans and mice is encoded by the PARK2 gene. Parkin plays a critical role in ubiquitination – the process whereby molecules are covalently labelled with ubiquitin (Ub) and directed towards degradation in proteasomes or lysosomes. Ubiquitination involves the sequential action of three enzymes. First, an E1 ubiquitin-activating enzyme binds to inactive Ub in eukaryotic cells via a thioester bond and mobilises it in an ATP-dependent process. Ub is then transferred to an E2 ubiquitin-conjugating enzyme before being conjugated to the target protein via an E3 ubiquitin ligase. There exists a multitude of E3 ligases, which differ in structure and substrate specificity to allow selective targeting of proteins to intracellular degradation.

**Immunogen:** Recombinant protein within human Parkin aa 1-200.

**Positive control:** SH-SY5Y (Human neuroblastoma cell) cell lysate, COS-1 (African green monkey kidney fibroblast) cell lysate, PC-12 (Rat pheochromocytoma cell (undifferentiated)) cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, Pig brain tissue lysate.

**Subcellular location:** Mitochondrion, mitochondrion outer membrane, endoplasmic reticulum, cytosol, Nucleus, neuron projection, postsynaptic density, presynapse.

**Database links:** SwissProt: O60260 Human | Q9WVS6 Mouse | Q9JK66 Rat

**Storage Buffer:** PBS (pH7.4).

**Storage Instruction:** Store at 2-8℃. Avoid freeze.

**Purity:** Protein A affinity purified.

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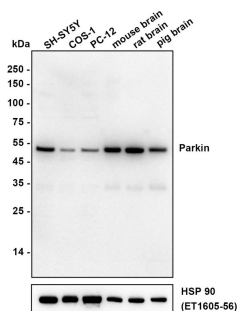
Orders: 0086-571-88062880

Technical: 0086-571-89986345

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## Images



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**Fig1:** This data was developed using HA601664, the same antibody clone in a different buffer formulation.

Western blot analysis of Parkin on different lysates with Rat anti-Parkin antibody (HA601664) at 1/5,000 dilution.

Lane 1: SH-SY5Y (Human neuroblastoma cell) cell lysate

Lane 2: COS-1 (African green monkey kidney fibroblast) cell lysate

Lane 3: PC-12 (Rat pheochromocytoma cell (undifferentiated)) cell lysate

Lane 4: Mouse brain tissue lysate

Lane 5: Rat brain tissue lysate

Lane 6: Pig brain tissue lysate

Lysates/proteins at 10 µg/Lane.

Exposure time: 10 seconds; ECL: K1801

Blocking: 5% NFDM/TBST, 1 hour at room temperature

Primary antibody: HA601664, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C

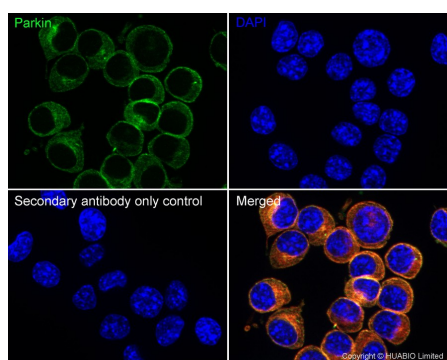
Secondary antibody: Goat anti-Rat IgG-HRP (HA1023), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 52 kDa

Observed band size: 52 kDa

**Fig2:** This data was developed using HA601664, the same antibody clone in a different buffer formulation.

Application: Immunocytochemistry (IF-cell)



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Species: Mouse

Sample: Neuro-2a (Mouse brain neuroblastoma cell)

Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.

Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.

Antibody dilution buffer: 1% BSA in PBST.

Primary antibody: HA601664, 1/50, overnight at 4°C.

Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 45 minutes at room temperature.

Counterstain: Beta tubulin (HA601187, Red), 1/100, overnight at 4°C. The nuclear counterstain was DAPI (Blue).

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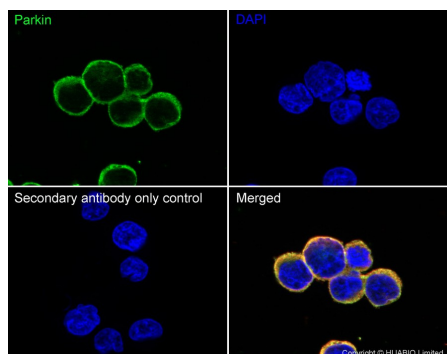
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**Fig3:** This data was developed using HA601664, the same antibody clone in a different buffer formulation.

Application: Immunocytochemistry (IF-cell)



Species: Rat

Sample: PC-12 (Rat pheochromocytoma cell (undifferentiated))

Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.

Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.

Antibody dilution buffer: 1% BSA in PBST.

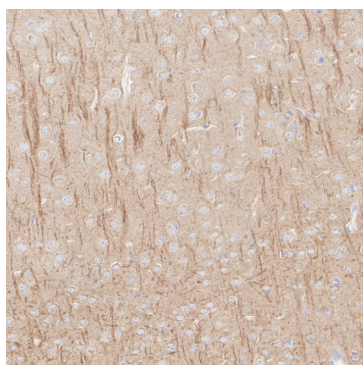
Primary antibody: HA601664, 1/50, overnight at 4°C.

Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 45 minutes at room temperature.

Counterstain: Beta tubulin (HA601187, Red), 1/100, overnight at 4°C. The nuclear counterstain was DAPI (Blue).

**Fig4:** This data was developed using HA601664, the same antibody clone in a different buffer formulation.

Application: Immunohistochemistry (IHC-P)



Species: Mouse

Tissue: Cerebral cortex

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<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA601664, 1/500, 1 hour at room temperature.

Secondary antibody: HA1023, 30 minutes at room temperature.

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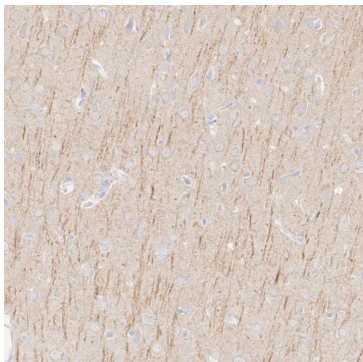
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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation



**Fig5:** This data was developed using HA601664, the same antibody clone in a different buffer formulation.

Application: Immunohistochemistry (IHC-P)

Species: Rat

Tissue: Cerebral cortex

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<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA601664, 1/500, 1 hour at room temperature.

Secondary antibody: HA1023, 30 minutes at room temperature.

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

### Background References

1. Quinn PMJ et al. PINK1/PARKIN signalling in neurodegeneration and neuroinflammation. *Acta Neuropathol Commun.* 2020 Nov
2. Li J et al. PINK1/Parkin-mediated mitophagy in neurodegenerative diseases. *Ageing Res Rev.* 2023 Feb

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