Anti-Phospho-Ser^{378} Parkin Antibody

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Catalog #: p197-378 **Size:** 100 µl

Cite this Antibody: PhosphoSolutions Cat# p197-378, RRID:AB_2492203

Host	Applications	Species Tested	Species Reactivity*	Molecular Reference
Rabbit	WB 1:1000	H	B, NHP	~52 kDa

Product Description: Affinity purified rabbit polyclonal antibody.

Biological Significance: Parkin is an E3 ligase in the ubiquitin-proteasome system. Hereditary Parkinson's disease is most commonly caused by mutations in the parkin gene and is characterized by the progressive loss of dopaminergic neurons and the presence of Lewy bodies in the substania nigra (Jenner et al.,1992). Recent evidence suggests that phosphorylation of parkin at Ser^{378} may have an important regulatory role on its E3 ubiquitin ligase activity (Yamamoto et al., 2005).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser^{378} of human parkin.

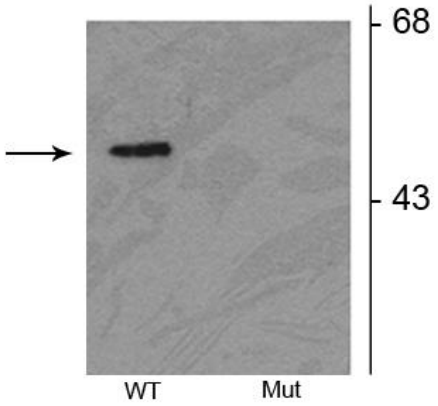
Antibody Specificity: Specific for the ~52 kDa parkin protein phosphorylated at Ser^{378}. Immunolabeling of the parkin band is absent in parkin S378 mutants.

Purification Method: Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

Storage and Stability: Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of HEK293 cells transfected with Parkin wild type (WT) and Parkin S378 mutant(Mut) showing the specific immunolabeling of the ~52 kDa parkin protein phosphorylated at Ser^{378}.

Application Key: **WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation
Species Reactivity Key: **All**-All Species **A**-Avian **Amp**-Amphibian **Ar**-*Arabidopsis* **B**-Bovine **C**-Canine **Ch**-Chicken **D**-*Drosophila* **GP**-Guinea Pig **H**-Human **Ha**-Hamster **M**-Mouse **NHP**- Non-human primate **P**-Pig **R**-Rat **S**-Sheep **X**-*Xenopus* **Z**-Zebrafish
*Species assumed based on 100% homology with sequence used as antigen **For Research Use Only**

Product Specific References:

Rubio de la Torre E, Luzón-Toro B, Forte-Lago I, Minguez-Castellanos A, Ferrer I, Hilfiker S. (2009) Combined kinase inhibition modulates parkin inactivation. Hum Mol Genet. Mar 1;18(5):809-23.

General References:

Jenner P, Dexter DT, Sian J, Schapira AH, Marsden CD (1992) Oxidative stress as a cause of nigral cell death in Parkinson's disease and incidental Lewy body disease. Ann Neurol. 32 Suppl: S82-7.

Yamamoto A, Friedlein A, Imai Y, Takahashi R, Kahle PJ, Haass C (2005) Parkin phosphorylation and modulation of its E# ubiquitin ligase activity. J Biol chem. 280(5):3390-9.

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