

ARG52390 anti-Parkin phospho (Ser378) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Parkin phospho (Ser378)
Tested Reactivity	Hu
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Parkin
Species	Human
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser378 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	AR-JP; EC 6.3.2.-; PRKN; Parkinson juvenile disease protein 2; E3 ubiquitin-protein ligase parkin; PDJ; Parkin; LPRS2; Parkinson disease protein 2

Application Instructions

Application table	Application	Dilution
	WB	1:1000
Application Note	Specific for the ~52k parkin protein phosphorylated at Ser378. Immunolabeling of the parkin band is absent in parkin S378 mutants. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links

[GeneID: 5071 Human](#)

[Swiss-port # O60260 Human](#)

Gene Symbol

PARK2

Gene Full Name

parkin RBR E3 ubiquitin protein ligase

Background

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 substantia nigra (Jenner et al., 1992). Recent evidence suggests that phosphorylation of parkin at Ser378 may have an important regulatory role on its E3 ubiquitin ligase activity (Yamamoto et al., 2005).

Research Area

Cell Biology and Cellular Response antibody; Metabolism antibody; Neuroscience antibody

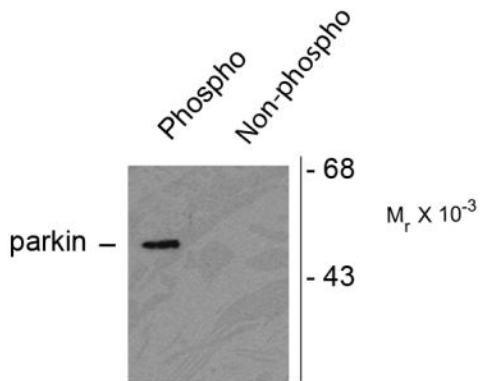
Calculated Mw

52 kDa

PTM

Auto-ubiquitinates in an E2-dependent manner leading to its own degradation (PubMed:19229105). Also polyubiquitinated by RNF41 for proteasomal degradation. S-nitrosylated. The inhibition of PRKN ubiquitin E3 ligase activity by S-nitrosylation could contribute to the degenerative process in PD by impairing the ubiquitination of PRKN substrates. Phosphorylation at Ser-65 by PINK1 contributes to activate PRKN activity. It is however not sufficient and requires binding to phosphorylated ubiquitin as well.

Images



ARG52390 anti-Parkin phospho (Ser378) antibody WB image

Western blot: HEK293 cells transfected with Parkin WT (Phospho) and Parkin S378 mutant (non-phospho) stained with ARG52390 anti-Parkin phospho (Ser378) antibody showing the phospho-specific immunolabeling of the ~ 52 k parkin protein. The immunolabeling is absent in the parkin S378 mutant.