# ARG58151
# anti-Parkin antibody

Package: 100 µl
Store at: -20°C

## Summary

| | |
|---|---|
| Product Description | Rabbit Polyclonal antibody recognizes Parkin |
| Tested Reactivity | Hu, Ms, Rat |
| Tested Application | FACS, ICC/IF, IHC-P, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | Parkin |
| Species | Human |
| Immunogen | Synthetic peptide derived from Human Parkin. |
| 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 |
|---|---|
| FACS | 1:50 |
| ICC/IF | 1:50 - 1:200 |
| IHC-P | 1:50 - 1:200 |
| WB | 1:500 - 1:2000 |

| | |
|---|---|
| Application Note | IHC-P: Antigen retrieval: Heat mediation in a EDTA buffer.<br>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |
| Positive Control | Jurkat |
| Observed Size | ~ 52 kDa |

## Properties

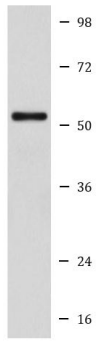
| | |
|---|---|
| Form | Liquid |
| Purification | Affinity purified. |
| Buffer | PBS (pH 7.4), 0.02% Sodium azide and 50% Glycerol. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 50% Glycerol |

| | |
|---|---|
| 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

| | |
|---|---|
| Gene Symbol | PARK2 |
| Gene Full Name | parkin RBR E3 ubiquitin protein ligase |
| Background | The precise function of this gene is unknown; however, the encoded protein is a component of a multiprotein E3 ubiquitin ligase complex that mediates the targeting of substrate proteins for proteasomal degradation. Mutations in this gene are known to cause Parkinson disease and autosomal recessive juvenile Parkinson disease. Alternative splicing of this gene produces multiple transcript variants encoding distinct isoforms. Additional splice variants of this gene have been described but currently lack transcript support. [provided by RefSeq, Jul 2008] |
| Function | Functions within a multiprotein E3 ubiquitin ligase complex, catalyzing the covalent attachment of ubiquitin moieties onto substrate proteins, such as BCL2, SYT11, CCNE1, GPR37, RHOT1/MIRO1, MFN1, MFN2, STUB1, SNCAIP, SEPT5, TOMM20, USP30, ZNF746 and AIMP2. Mediates monoubiquitination as well as 'Lys-6', 'Lys-11', 'Lys-48'-linked and 'Lys-63'-linked polyubiquitination of substrates depending on the context. Participates in the removal and/or detoxification of abnormally folded or damaged protein by mediating 'Lys-63'-linked polyubiquitination of misfolded proteins such as PARK7: 'Lys-63'-linked polyubiquitinated misfolded proteins are then recognized by HDAC6, leading to their recruitment to aggresomes, followed by degradation. Mediates 'Lys-63'-linked polyubiquitination of a 22 kDa O-linked glycosylated isoform of SNCAIP, possibly playing a role in Lewy-body formation. Mediates monoubiquitination of BCL2, thereby acting as a positive regulator of autophagy. Promotes the autophagic degradation of dysfunctional depolarized mitochondria (mitophagy) by promoting the ubiquitination of mitochondrial proteins such as TOMM20, RHOT1/MIRO1 and USP30. Preferentially assembles 'Lys-6'-, 'Lys-11'- and 'Lys-63'-linked polyubiquitin chains following mitochondrial damage, leading to mitophagy. Mediates 'Lys-48'-linked polyubiquitination of ZNF746, followed by degradation of ZNF746 by the proteasome; possibly playing a role in the regulation of neuron death. Limits the production of reactive oxygen species (ROS). Regulates cyclin-E during neuronal apoptosis. In collaboration with CHPF isoform 2, may enhance cell viability and protect cells from oxidative stress. Independently of its ubiquitin ligase activity, protects from apoptosis by the transcriptional repression of p53/TP53. May protect neurons against alpha synuclein toxicity, proteasomal dysfunction, GPR37 accumulation, and kainate-induced excitotoxicity. May play a role in controlling neurotransmitter trafficking at the presynaptic terminal and in calcium-dependent exocytosis. May represent a tumor suppressor gene. [UniProt] |
| 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.<br><br>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.<br><br>Phosphorylation at Ser-65 by PINK1 contributes to activate PRKN activity. It is however not sufficient and requires binding to phosphorylated ubiquitin as well. [UniProt] |
| Cellular Localization | Mitochondrion. [UniProt] |

## Images




ARG58151 anti-Parkin antibody WB image

Western blot: Jurkat cell lysate stained with ARG58151 anti-Parkin antibody.