

PARK8 (LRRK2) Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM7099a

Specification

PARK8 (LRRK2) Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB,E |
| Primary Accession | Q5S007 |
| Reactivity | Human, Mouse |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | Mouse IgG1 |
| Clone Names | 133AT1218 |
| Calculated MW | 286103 |

PARK8 (LRRK2) Antibody - Additional Information

Gene ID 120892

Other Names

Leucine-rich repeat serine/threonine-protein kinase 2, Dardarin, LRRK2, PARK8

Target/Specificity

This PARK8 (LRRK2) antibody was raised in mice using purified His-tagged recombinant protein comprised of the C-terminal 261 residues of LRRK2.

Dilution

WB~~1:100~500

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

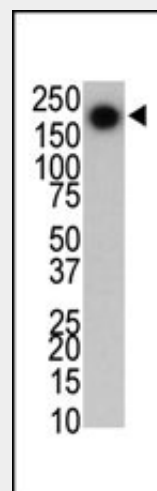
Precautions

PARK8 (LRRK2) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PARK8 (LRRK2) Antibody - Protein Information

Name LRRK2

Synonyms PARK8



The anti-LRRK2 Mab (Cat. #AM7099a) is used in Western blot to detect LRRK2 in mouse brain cell lysate.

PARK8 (LRRK2) Antibody - Background

This gene is a member of the leucine-rich repeat kinase family and encodes a protein with an ankryin repeat region, a leucine-rich repeat (LRR) domain, a kinase domain, a DFG-like motif, a RAS domain, a GTPase domain, a MLK-like domain, and a WD40 domain. The protein is present largely in the cytoplasm but also associates with the mitochondrial outer membrane. Mutations in this gene have been associated with Parkinson disease-8.

PARK8 (LRRK2) Antibody - References

Olfactory heterogeneity in LRRK2 related Parkinsonism. Silveira-Moriyama L, et al. Mov Disord, 2010 Sep 3. PMID 20818658. LRRK2 G2019S mutations are associated with an increased cancer risk in Parkinson disease. Saunders-Pullman R, et al. Mov Disord, 2010 Sep 3. PMID 20818610. Low frequency of common LRRK2 mutations in Mexican patients with Parkinson's disease. Yescas P, et al. Neurosci Lett, 2010 Aug 18. PMID 20727385. Absence of Commonly Reported Leucine-Rich Repeat Kinase 2 Mutations in Eastern Indian Parkinson's Disease Patients. Sanyal J, et al. Genet Test Mol Biomarkers, 2010 Aug 19. PMID 20722494. Penetrance in Parkinson's disease related to the LRRK2 R1441G mutation in the Basque country

Function

Positively regulates autophagy through a calcium- dependent activation of the CaMKK/AMPK signaling pathway. The process involves activation of nicotinic acid adenine dinucleotide phosphate (NAADP) receptors, increase in lysosomal pH, and calcium release from lysosomes. Together with RAB29, plays a role in the retrograde trafficking pathway for recycling proteins, such as mannose 6 phosphate receptor (M6PR), between lysosomes and the Golgi apparatus in a retromer-dependent manner. Regulates neuronal process morphology in the intact central nervous system (CNS). Plays a role in synaptic vesicle trafficking. Phosphorylates PRDX3. Has GTPase activity. May play a role in the phosphorylation of proteins central to Parkinson disease.

Cellular Location

Membrane; Peripheral membrane protein. Cytoplasm. Perikaryon. Mitochondrion. Golgi apparatus. Cell projection, axon. Cell projection, dendrite. Endoplasmic reticulum. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Peripheral membrane protein; Cytoplasmic side. Endosome. Lysosome. Mitochondrion outer membrane Mitochondrion inner membrane. Mitochondrion matrix. Note=Predominantly associated with intracytoplasmic vesicular and membranous structures (By similarity). Localized in the cytoplasm and associated with cellular membrane structures Predominantly associated with the mitochondrial outer membrane of the mitochondria. Colocalized with RAB29 along tubular structures emerging from Golgi apparatus. Localizes in intracytoplasmic punctate structures of neuronal perikarya and dendritic and axonal processes.

Tissue Location

Expressed in the brain. Expressed in pyramidal neurons in all cortical laminae of the visual cortex, in neurons of the substantia nigra pars compacta and caudate putamen (at protein level). Expressed throughout the adult brain, but at a lower level than in heart and liver. Also expressed in placenta, lung, skeletal muscle, kidney and pancreas. In the brain, expressed in the cerebellum, cerebral cortex, medulla, spinal cord occipital pole, frontal lobe, temporal lobe and putamen Expression is particularly high in brain dopaminoreceptive areas

(Spain). Ruiz-Martínez J, et al. Mov Disord, 2010 Aug 18. PMID 20721916.

PARK8 (LRRK2) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

PARK8 (LRRK2) Antibody - Citations

- [Curcumin exposure induces expression of the Parkinson's disease-associated leucine-rich repeat kinase 2 \(LRRK2\) in rat mesencephalic cells.](#)
- [Dynamic and redundant regulation of LRRK2 and LRRK1 expression.](#)