

Purified anti-LRRK2 Antibody (Previously Covance catalog# SIG-39840)

Catalog# / Size	808201 / 100 µL
Clone	MC.028.83.76.242
Regulatory Status	RUO
Other Names	Leucine-rich repeat serine/threonine-protein kinase 2, augmented in rheumatoid arthritis 17, AURA17, DARDARIN, PARK8, RIPK7, ROCO2
Previously	Covance Catalog# SIG-39840
Isotype	Mouse IgG1, κ
Description	Leucine-rich repeat kinase 2 (LRRK2), is a member of the leucine-rich repeat kinase family. This protein also functions as a GTPase. Proteins with leucine-rich regions play a role in protein-protein interactions and mediate assembly of the cell's structural framework (cytoskeleton). Mutations in LRRK2 genes have been associated with late-onset Parkinson's disease.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	This monoclonal antibody was raised against a peptide immunogen comprising amino acids 2069-2087 of the LRRK2 protein in mice that did not express endogenous LRRK2 protein.
Formulation	Phosphate-buffered solution.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Please note the storage condition for this antibody has been changed from -20°C to between 2°C and 8°C. You can also check your vial or your CoA to find the most accurate storage condition for this antibody.
Application	IHC-P - Quality tested Direct ELISA - Verified
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration of 25 µg/mL is suggested. For Direct ELISA, a concentration range of 1.0 - 10 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody was generated with support from The Michael J. Fox Foundation. The Michael J. Fox Foundation is dedicated to finding a cure for Parkinson's disease through an aggressively funded research agenda and to ensuring the development of improved therapies for those living with Parkinson's today. To learn more about MJFF, please visit www.michaeljfox.org .
RRID	AB_2564739 (BioLegend Cat. No. 808201)

Antigen Details

Structure	This gene is a member of the leucine-rich repeat kinase family and is encoded by the PARK8 gene. The protein is present mainly in the cytoplasm but can be associated with the mitochondrial outer membrane.
Distribution	Tissue distribution: Lung, Kidney, parathyroid gland, CNS Cellular distribution: cytoplasm, mitochondrion, nucleus, endoplasmic reticulum, lysosome, Golgi

apparatus, endosome

Function

LRRK2 interacts with the C-terminal R2 RING finger domain of parkin. LRRK2 positively regulates autophagy through a calcium-dependent activation of the CaMKK/AMPK signaling pathway. Mutations in this gene have been associated with Parkinson disease.

Biology Area

Cell Biology, Mitochondrial Function, Neuroinflammation, Neuroscience, Neuroscience Cell Markers

Molecular Family

Mitochondrial Markers

Antigen References

1. Paisán-Ruiz C, et al. 2004. *Neuron*. 44(4):595-600.
2. Alegre-Abarrategui J, et al. 2009. *Hum. Mol. Genet.* 18(21):4022-34.
3. Gómez-Suaga P, et al. 2012. *Hum. Mol. Genet.* 21(3):511-25.
4. Orenstein SJ, et al. 2013. *Nat. Neurosci.* 16(4):394-406.
5. Cherra SJ, et al. 2013. *Am. J. Pathol.* 182(2):474-84.

Gene ID

[120892](#)

Related Protocols

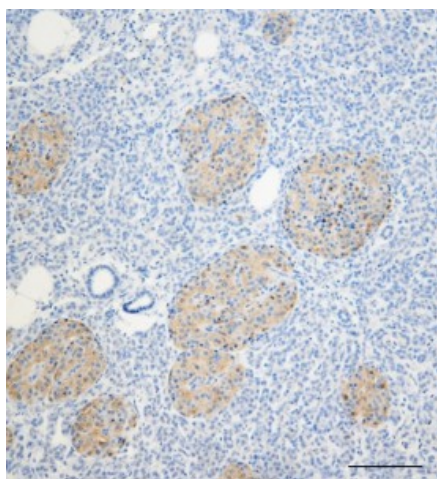
[Sandwich ELISA Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

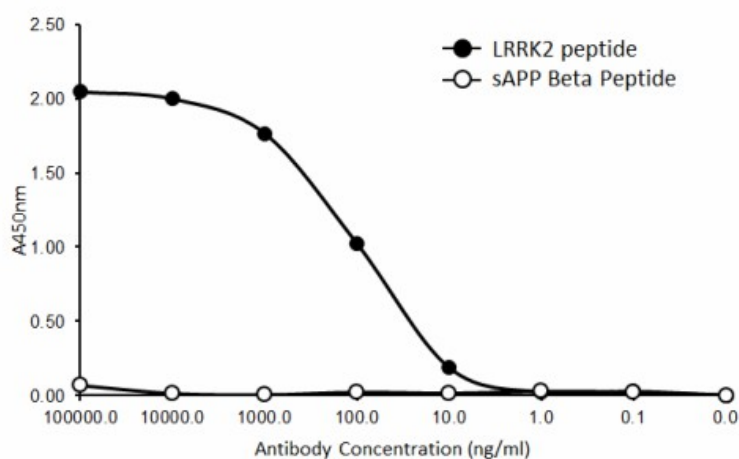
Other Formats

Purified anti-LRRK2

Product Data



IHC staining of purified anti-LRRK2 antibody (clone MC.028.83.76.242) on the formalin-fixed paraffin-embedded human pancreas tissue. Following antigen retrieval using Sodium Citrate H.I.E.R., the tissue was incubated with 25 µg/mL of the primary antibody for 60 minutes at room temperature. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



Direct ELISA of purified anti-LRRK2 antibody (clone MC.028.83.76.242). Wells were coated with 100 ng of plate-immobilized recombinant human LRRK2 peptide or sAPP Beta peptide. The wells were then incubated with the primary antibody at 37°C for 60 minutes, followed by incubation with the horseradish peroxidase labeled goat anti-mouse secondary antibody. TMB (3, 3', 5, 5' tetramethylbenzidine, Cat. No. 421501) was used as the detection system.

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587