Product Datasheet

LRRK2 Antibody - BSA Free
NB110-58771

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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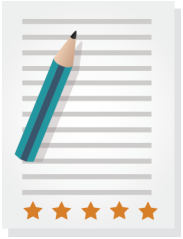
Updated 2/21/2025 v.20.1



NB110-58771

LRRK2 Antibody - BSA Free

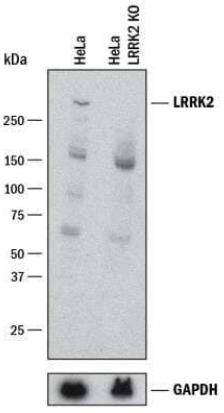
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	286 kDa

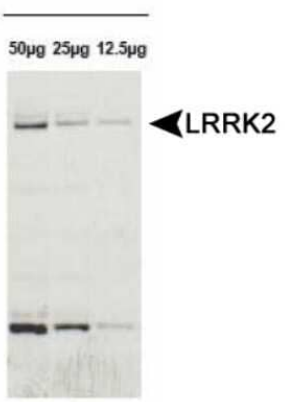
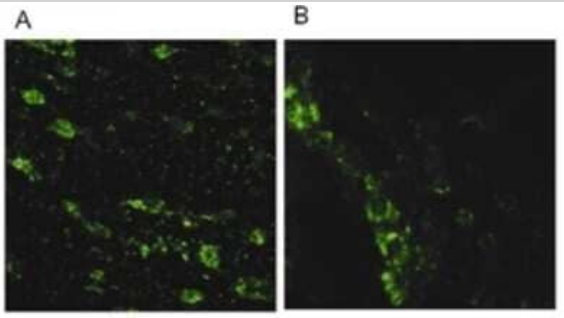
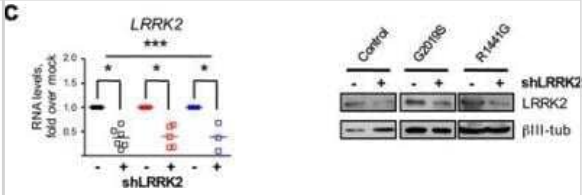
Product Description	
Host	Rabbit
Gene ID	120892
Gene Symbol	LRRK2
Species	Human, Mouse, Rat, Primate
Immunogen	A synthetic peptide made to a C-terminal region, within residues 2500-2527 of the human LRRK2 protein, conjugated to KLH. [Swiss-Prot# Q5S007]

Product Application Details	
Applications	Western Blot, Flow (Cell Surface), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:200-1:500, Immunocytochemistry/ Immunofluorescence 1:500-1:1000, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin reported in scientific literature (PMID 24312256), Immunohistochemistry-Frozen, Flow (Cell Surface) reported in scientific literature (PMID 20483355), Knockout Validated, Knockdown Validated

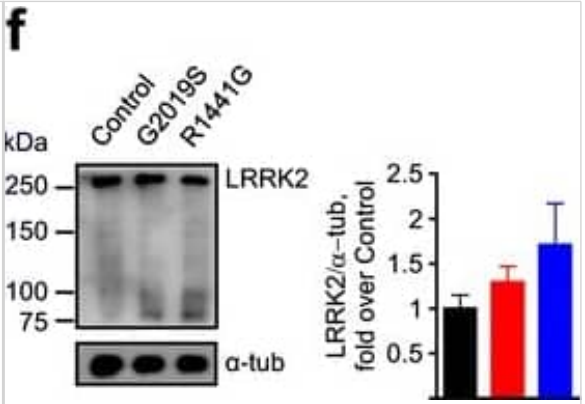
Images

Western Blot: LRRK2 Antibody [NB110-58771] - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and LRRK2 knockout (KO) HeLa cell line. PVDF membrane was probed with 1:1000 of Rabbit Anti-Human LRRK2 Polyclonal Antibody (Catalog # NB110-58771) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for LRRK2 at approximately 275 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.



Western Blot: LRRK2 Antibody [NB110-58771] - NB110-58771 in increasing amounts of human lymphoblast	
Immunocytochemistry/Immunofluorescence: LRRK2 Antibody [NB110-58771] - Immunofluorescence of Lrrk2 with NB110-58771 within (A) Substantia nigra neurons (B) Chains of migrating neuroblasts.	
Immunohistochemistry-Frozen: LRRK2 Antibody [NB110-58771] - DAB Immunostaining in frozen sections of mouse brainstem.	
Western Blot: LRRK2 Antibody [NB110-58771] - LRRK2 RNA levels 5 days after shRNA lentiviral transduction. The empty vector was used as the mock control. Lines represent the mean +/- SEM of three to four independent silencing experiments. A representative immunoblot analysis of LRRK2 protein levels 5 days after transduction is also shown. Beta-III-tubulin was the loading control. Image collected and cropped by CiteAb from the following publication (https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-016-0761-x) licensed under a CC-BY license.	

Western Blot: LRRK2 Antibody [NB110-58771] - Characterization of iPSC-derived DA neurons with LRRK2 mutations. a Diagram showing the DA differentiation protocol used for neural induction of human iPSC lines. b Temporal gene expression analyzed by qRT-PCR at three time points: induction (3 weeks), expansion (4–5 weeks), & maturation (>6 weeks). Each point represents the mean ± SEM of at least two independent differentiation experiments. c Representative images of mature neuronal cultures showing expression of neuronal (βIII-tubulin, Tau, & α-synuclein) & dopaminergic (TH, NURR1) markers. Nuclei were counterstained with Hoechst. Scale bars: 50 µm. d Quantification of immunostainings. Data are represented as mean ± SEM of counts from at least two different lines for each genotype. e Representative western blot analyses of TH, Tau, & GFAP with βIII-tubulin as loading control in iPSC-derived mature neurons. f Representative immunoblots & quantification of LRRK2 expression in mature neuronal cultures. α-tubulin was the loading control & data were normalized to control WT neurons. Bars represent the mean ± SEM of at least two different lines per genotype. DIV days in vitro, GEL gelatin, POL poly-ornithine, FBN fibronectin, LMN laminin, N2 N2 supplement, bFGF basic fibroblast growth factor, SAG smoothened agonist, LDN LDN-193189, CHIR CHIR99021, SB SB431542, BDNF brain-derived neurotrophic factor, AA ascorbic acid, B27 B27 supplement, dbcAMP dibutyryl cyclic adenosine monophosphate, TGFβIII transforming growth factor βIII, GDNF glial derived neurotrophic factor. See Additional file 2 for uncropped blots Image collected & cropped by CiteAb from the following publication (http://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-016-0761-x), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Labib M, Wang Z, Kim Y et al. Identification of druggable regulators of cell secretion via a kinome-wide screen and high-throughput immunomagnetic cell sorting Nature biomedical engineering 2023-11-27 [PMID: 38012306]

Lopez de Maturana R, Lang V, Zubiarrain A et al. Mutations in LRRK2 impair NF-kB pathway in iPSC-derived neurons. J Neuroinflammation. 2016-11-18 [PMID: 27863501] (WB, Human)

Skibinski G, Nakamura K, Cookson MR, Finkbeiner S. Mutant LRRK2 toxicity in neurons depends on LRRK2 levels and synuclein but not kinase activity or inclusion bodies. J Neurosci. 2014-01-08 [PMID: 24403142] (ICC/IF)

Nakamori M, Takahashi T, Nishikawa T et al. Molecular Markers for Granulovacuolar Degeneration Are Present in Rimmed Vacuoles. PLoS One. 2013-11-28 [PMID: 24312256] (IHC-P, ICC/IF, Human)

Melrose H. Update on the functional biology of Lrrk2. Future Neurol. 2008-01-01 [PMID: 19225574] (WB, Mouse)

Melrose HL, Dachsel JC, Behrouz B et al. Impaired dopaminergic neurotransmission and microtubule-associated protein tau alterations in human LRRK2 transgenic mice. Neurobiol Dis 2010-12-01 [PMID: 20659558] (WB, Mouse)

Melrose, HL et al. A comparative analysis of leucine-rich repeat kinase 2 (Lrrk2) expression in mouse brain Lewy Body disease. Neurosci 147: 1047-1058. 2007-01-01 [PMID: 17611037] (IF/IHC, WB, Mouse)

Lee H, Melrose HL, Yue M et al. Lrrk2 localization in the primate basal ganglia and thalamus: a light and electron microscopic analysis in monkeys. Exp Neurol;224(2):438-47. 2010-08-01 [PMID: 20483355] (IF/IHC, WB, ICC/IF, Primate)

Procedures

Serum protocol for LRRK2 Antibody (NB110-58771)
LRRK2 Antibody:
Immunostaining of frozen sections using streptavidin or Exvtravidin peroxidase and DAB

1. Make 10 micron frozen sections.
2. Fix tissue sections on slides in cold acetone, 10% buffered folrmalin or 4% paraformaldehyde for 8 to 10 min.
3. Rinse slides with PBS by immersion for 2 min. Repeat.
4. Block all slides with 5% milk in PBST for 30 min. at RT.
5. Remove blocking solution and add NB 110-58771 LRRK2 primary antibody 1:100 to 1:200 in PBS with 0.1% triton X-100 with 5% milk.
6. Incubate slides at 4degrees Celcius, overnight.
7. Rinse slides with PBST by immersion for 2 min. Repeat.
8. Add biotinylated donkey anti-rabbit secondary antibody (1:500 in PBST with 5% milk). Incubate 1 hour at RT.
9. Rinse with PBST by immersion 2 min. Repeat.
10. Add streptavidin-HRP or Extravidin-HRP. Incubate at RT for 1 hr.
11. Rinse with PBS by immersion for 1 min. Repeat.
12. Make DAB solution.
13. Add DAB to slides. Incubate 5-7 minutes.
14. Stop DAB reaction by immersion in water.
15. Counterstain sections, if desired.
16. Dehydrate,defat and coverslip slides.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB110-58771

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NB110-58771B	LRRK2 Antibody [Biotin]

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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