

Anti-LRRK2 antibody [MJFF3 (c69-6)] ab133475

敲除验证
重组
RabMAb

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概述

产品名称	Anti-LRRK2抗体[MJFF3 (c69-6)]
描述	兔单克隆抗体[MJFF3 (c69-6)] to LRRK2
宿主	Rabbit
经测试应用	适用于: IHC-P, WB
种属反应性	与反应: Mouse, Human 预测可用于: Rat 
免疫原	Recombinant fragment within Human LRRK2 aa 950 to the C-terminus. The exact sequence is proprietary.
阳性对照	IHC-P: Human brain hippocampus tissue WB: Jurkat cells transfected with LRRK2
常规说明	<p>Well-characterized antibodies to efficiently detect and purify LRRK2 protein are a critical need in the Parkinson's Disease (PD) research community. To help accelerate LRRK2 research, The Michael J. Fox Foundation (MJFF), working with Abcam, has generated unique and high quality LRRK2 rabbit monoclonal antibodies to be widely available for PD research community.</p> <p>LRRK2 (Leucine-rich repeat kinase 2, dardarin) is a protein kinase belonging to the ROCO family, which is defined by the presence of a ROC (Ras/GTPase of complex proteins) domain and COR (C-terminal of Roc) region. LRRK2 exhibits kinase activity whereby it can undergo autophosphorylation and can phosphorylate generic substrates. In addition, the GTPase domain of LRRK2 can mediate GDP (guanosine-5'-diphosphate)/GTP (guanosine-5'-triphosphate) binding as well as GTP hydrolysis.</p> <p>LRRK2 is mutated in a significant number of Parkinson's disease (PD) patients. Mutations in this gene account for 4% of PD, and are observed in 1% of sporadic PD patients. Clinical symptoms of patients carrying PD-associated mutations of LRRK2 are indistinguishable from typical sporadic PD. The spectra of neuropathological features of PARK8 (type 8), the type corresponding to LRRK2, is broad and appears to encompass those associated with other familial PD cases such as PARK1 (alpha-synuclein) and PARK2 (Parkin). Patients with this gene mutation have typical relatively late onset Parkinsonism with features comparable with idiopathic PD; symptoms include asymmetric rest tremor, bradykinesia, rigidity, and a good response to 3,4-dihydroxy-L-phenylalanine (L-DOPA). The pathology of cases with LRRK2 mutations is pleomorphic.</p> <p>For more characterization data and protocols using this LRRK2 Antibody, please refer to Davies, et al. 2013. Biochemical J 453(1):101-113 [PMID: 23560750]</p>

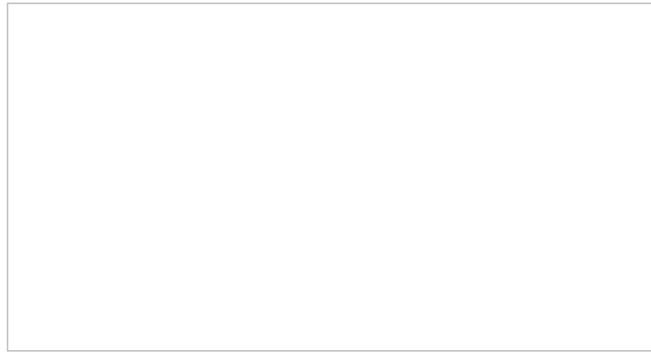
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

This antibody was developed with support from The Michael J. Fox Foundation.



性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituent: 99% PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	MJFF3 (c69-6)
同种型	IgG

应用

The Abpromise guarantee

Abpromise[™] 承诺保证使用ab133475于以下的经测试应用

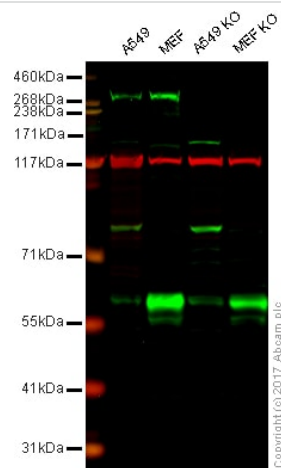
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		1/200 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000 - 1/10000. Predicted molecular weight: 286 kDa.

靶标

功能	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.
组织特异性	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 dopaminoceptive areas.
疾病相关	Parkinson disease 8
序列相似性	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. Contains 12 LRR (leucine-rich) repeats. Contains 1 protein kinase domain. Contains 1 Roc domain. Contains 7 WD repeats.
结构域	The seven-bladed WD repeat region is critical for synaptic vesicle trafficking and mediates interaction with multiple vesicle-associated presynaptic proteins. The Roc domain mediates homodimerization and regulates kinase activity.
翻译后修饰	Autophosphorylated.
细胞定位	Membrane. Cytoplasm. Perikaryon. Mitochondrion. Golgi apparatus. Cell projection, axon. Cell projection, dendrite. Endoplasmic reticulum. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane. Endosome. Lysosome. Mitochondrion outer membrane. Mitochondrion inner membrane. Mitochondrion matrix. 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.

图片



Western blot - Anti-LRRK2 antibody [MJFF3 (c69-6)]
(ab133475)

Lane 1: A549 whole cell lysate (20 µg)

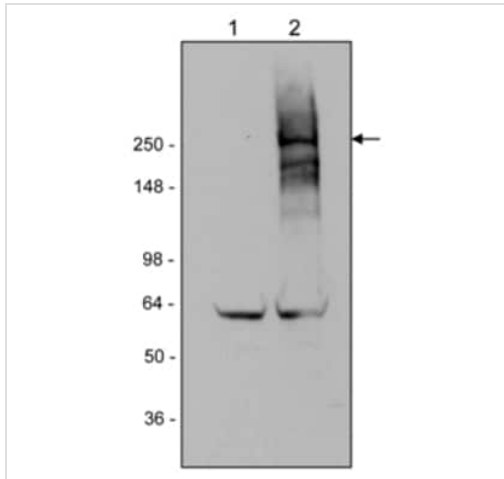
Lane 2: MEF whole cell lysate (20 µg)

Lane 3: A549 (KO) whole cell lysate (20 µg)

Lane 4: MEF (KO) whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab133475 observed at 286 kDa. Red - loading control, **ab180558**, observed at 130 kDa.

ab133475 was shown to specifically react with Wild type A549 and MEF cells whilst no band was observed when knockout samples were used. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and knockout samples were subjected to SDS-PAGE. Ab133475 and **ab180558** (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-LRRK2 antibody [MJFF3 (c69-6)] (ab133475)

This image is courtesy of Zhuohua Zhang Lab (Sanford-Burnham Medical Research Institute)

All lanes : Anti-LRRK2 antibody [MJFF3 (c69-6)] (ab133475) at 1/1000 dilution

Lane 1 : HEK293 cell lysate transfected with 3*Flag vector

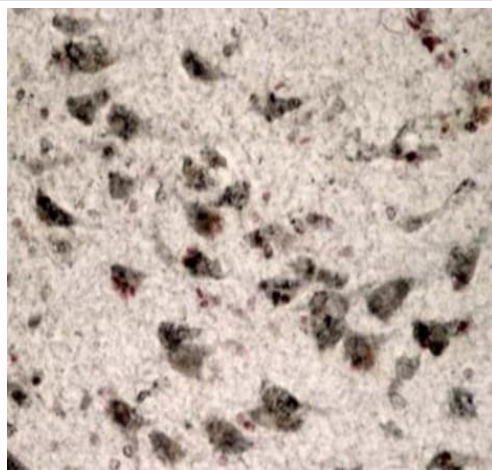
Lane 2 : HEK293 cell lysate transfected with 3*Flag wild type, full length LRRK2

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP-labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 286 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRRK2 antibody [MJFF3 (c69-6)] (ab133475)

This image is courtesy of the Douglas Walker Lab

ab133475, at 1/200 dilution, staining LRRK2 in paraffin embedded Human hippocampus tissue using immunohistochemical analysis.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-LRRK2 antibody [MJFF3 (c69-6)] (ab133475)

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