abcam

Product datasheet

Anti-LRRK2 (phospho T2483) antibody [MJF-R8 (21-2e)] ab156577



3 References 2 Images

Overview

Product name Anti-LRRK2 (phospho T2483) antibody [MJF-R8 (21-2e)]

Description Rabbit monoclonal [MJF-R8 (21-2e)] to LRRK2 (phospho T2483)

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Immunogen Synthetic peptide corresponding to Human LRRK2 (phospho T2483).

Database link: Q5S007

Positive control HEK293 cells transiently transfected with wild-type or mutant LRRK2.

General notesThis 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.



Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

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supernatant

Purity Tissue culture supernatant

Clonality Monoclonal

Clone number MJF-R8 (21-2e)

Isotype IgG

Applications

The Abpromise guarantee

Our Abpromise quarantee covers the use of ab156577 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/5000. Predicted molecular weight: 286 kDa.

Positively regulates autophagy through a calcium-dependent activation of the CaMKK/AMPK signaling pathway. The process involves activation of nicotinic acid adenine dinucleotide	

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.

Tissue specificity

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.

Involvement in disease Parkinson disease 8

Sequence similaritiesBelongs 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.

Domain 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.

Post-translational modifications

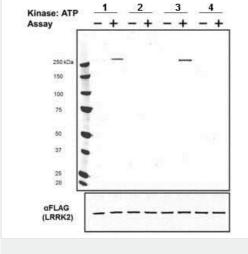
Autophosphorylated.

Cellular localizationMembrane. Cytoplasm. Perikaryon. Mitochondrion. Golgi apparatus. Cell projection, axon. Cellprojection, dendrite. Endoplasmic reticulum. Cytoplasmic vesicle, secretory vesicle, synapticvesicle 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.

Images



Western blot - Anti-LRRK2 (phospho T2483) antibody [MJF-R8 (21-2e)] (ab156577) **All lanes :** Anti-LRRK2 (phospho T2483) antibody [MJF-R8 (21-2e)] (ab156577) at 1/1000 dilution

Lane 1: HEK293 cells transiently transfected with wild type LRRK2

Lane 2: HEK293 cells transiently transfected with T2483

Lane 3: HEK293 cells transiently transfected with G2019S

Lane 4: HEK293 cells transiently transfected with Kinase dead

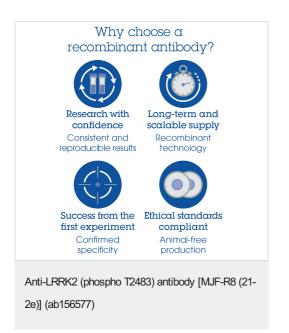
Lysates/proteins at 10 µg per lane.

Secondary

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

Predicted band size: 286 kDa

LRRK2 protein was immunoprecipitated and subjected to an in vitro kinase assay in the presence (+) or absence (-) of ATP.



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