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Product datasheet

Anti-LRRK2 (phospho T1491) antibody [MJFR5-88-3] ab140106

リコンビナント RabMAb

3 References 画像数 2

製品の概要

製品名	Anti-LRRK2 (phospho T1491) antibody [MJFR5-88-3]
製品の詳細	Rabbit monoclonal [MJFR5-88-3] to LRRK2 (phospho T1491)
由来種	Rabbit
アプリケーション	**適用あり:** WB **適用なし:** Flow Cyt,ICC/IF,IHC-P or IP
種交差性	**交差種:** Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	HEK293 cells transiently transfected with wild-type DDDDK tag-LRRK2 + / - ATP.
特記事項	This antibody was developed with support of The Michael J. Fox Foundation (MJFF) with the assistance of a consortium of investigators to help accelerate LRRK2 research. LRRK2 (Leucine-rich repeat kinase 2, dardarin) is a multi-domain protein belonging to the ROCO family of proteins that contains a kinase and GTPase domain among its many protein interaction domains. 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. The most common mutation replaces glycine 2019 with a serine that results in increased LRRK2 kinase activity. This indicates that inhibitors of LRRK2 kinase activity might be of therapeutic benefit for the treatment of Parkinson’s disease and has stimulated much activity in this field of research. Based upon mass spectrometry findings, a number of other residues within LRRK2 have also been found to be phosphorylated as well. Currently, the physiological relevance of these phospho-sites is not clear. Thus with the generation of this phospho-specific antibody, it is MJFF's hope that investigators may have at hand a critical tool to assist in their research endeavors that might thereby lend further clarity to the field of LRRK2 and its role in PD pathogenesis. Acknowledgements: The Michael J. Fox Foundation would like to acknowledge the assistance of the following laboratories and individuals, whose input, guidance and assistance in testing all phospho specific LRRK2 antibodies was critical: • The Laboratory of Dr. Dario Alessi (University of Dundee) - Paul Davies, PhD • The Laboratory of Dr. Mark Cookson (National Institute on Aging) - Alexandra Beilina, PhD • The Laboratory of Dr. Johannes Gloeckner (Helmholtz Zentrum Munchen) • The Laboratory of Dr. Takeshi Iwatsubo (University of Tokyo) - Genta Ito, PhD • The Laboratory of Dr. Jeremy Nichols (The Parkinson's Institute) • The Laboratory of Dr. Andrew West (University of Alabama)

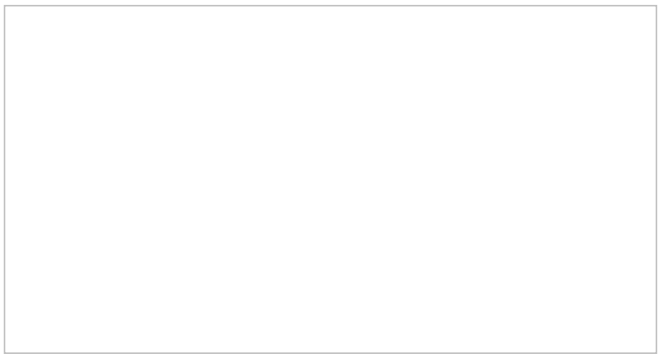
This product is a recombinant monoclonal antibody, which offers several advantages including:

- 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.



製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at -20ºC.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	MJFR5-88-3
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab140106の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

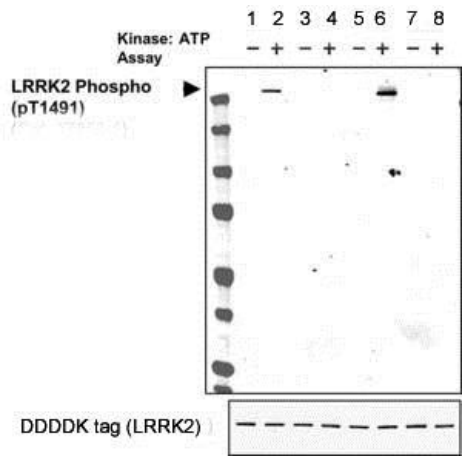
アプリケーション	Abreviews	特記事項
WB		1/1000 - 1/5000. Predicted molecular weight: 286 kDa.

追加情報 Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

ターゲット情報

機能	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.
組織特異性	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.
関連疾患	Parkinson disease 8
配列類似性	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.
ドメイン	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.
翻訳後修飾	Autophosphorylated.
細胞内局在	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.

画像



Western blot - Anti-LRRK2 (phospho T1491) antibody [MJFR5-88-3] (ab140106)

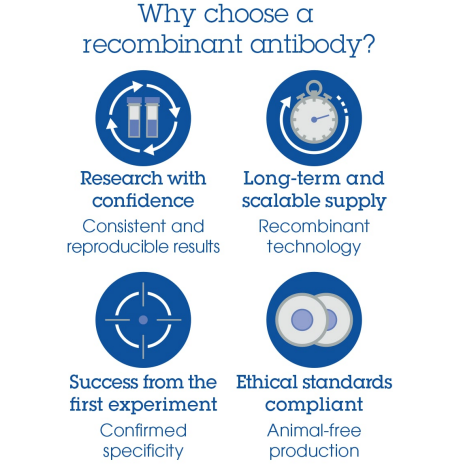
This image is courtesy of Dr. R. Jeremy Nichols (The Parkinson's Institute)

All lanes : Anti-LRRK2 (phospho T1491) antibody [MJFR5-88-3] (ab140106) at 1/1000 dilution

Lane 1 : Wildtype of LRRK2 - ATP
Lane 2 : Wildtype of LRRK2 + ATP
Lane 3 : Mutant construct of T1491A (A replace T) - ATP
Lane 4 : Mutant construct of T1491A (A replace T) + ATP
Lane 5 : Mutant construct of G2019S (S replace G) - ATP
Lane 6 : Mutant construct of G2019S (S replace G) + ATP
Lane 7 : Kinase dead - ATP
Lane 8 : Kinase dead + ATP

Predicted band size: 286 kDa

Western blot analysis on HEK293 cells transiently transfected with wild-type FLAG-LRRK2 + / - ATP.



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