For Research Use Only

PARK7/DJ-1 Monoclonal antibody

Catalog Number:68915-6-Ig

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Basic Information

Catalog Number:
68915-6-Ig

Size:
1000 ug/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG28526

GenBank Accession Number:
BC008188

GeneID (NCBI):
11315

UNIPROT ID:
Q99497

Full Name:
Parkinson disease (autosomal recessive, early onset) 7

Calculated MW:
189 aa, 20 kDa

Observed MW:
20-25 kDa

Purification Method:
Protein G purification

CloneNo.:
4G4E7

Recommended Dilutions:
WB 1:2000-1:19400

Applications

Tested Applications:
WB, FC (Intra), ELISA

Species Specificity:
human, mouse, rat, pig, rabbit

Positive Controls:

WB : HeLa cells, pig brain tissue, HEK-293 cells, Jurkat cells, PC-12 cells, rabbit brain tissue, rat brain tissue, mouse brain tissue

Background Information

PARK7, also named as DJ1, belongs to the peptidase C56 family. It protects cells against oxidative stress and cell death. PARK7 plays a role in regulating expression or stability of the mitochondrial uncoupling proteins SLC25A14 and SLC25A27 in dopaminergic neurons of the substantia nigra pars compacta and attenuates the oxidative stress induced by calcium entry into the neurons via L-type channels during pacemaking. It eliminates hydrogen peroxide and protects cells against hydrogen peroxide-induced cell death. PARK7 has cell-growth promoting activity and transforming activity. It may function as a redox-sensitive chaperone. It's precursor undergoes a cleavage of a C-terminal peptide and subsequent activation of protease activity in response to oxidative stress. The amino acid replace at 166 (L → P) reduces PARK7 protein stability and leads to increased degradation. The predicted MW of this protein is 20 kDa, An additional 25 kDa band can be observed due to modification (PMID: 31767755).

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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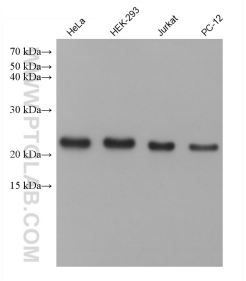
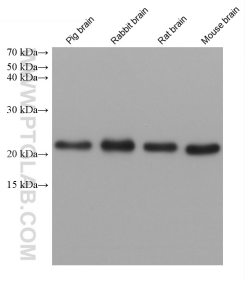
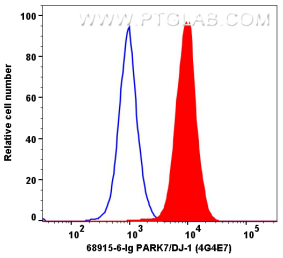
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 68915-6-Ig (PARK7/DJ-1 antibody) at dilution of 1:9700 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 68915-6-Ig (PARK7/DJ-1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



1x10^6 HeLa cells were intracellularly stained with 0.2 μg PARK7/DJ-1 Monoclonal antibody (68915-6-Ig, Clone: 4G4E7, red) and CoraLite® Plus 647-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO.RGAM005). Mouse IgG1 isotype control (66360-1-Ig, Clone: 1F8D3, blue) was parallel stained as control. Cells were fixed with 4% PFA.