For Research Use Only

PARK7/DJ-1 Recombinant monoclonal antibody, PBS Only (Capture)

Catalog Number:82913-1-PBS

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
82913-1-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG2287

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 A purification

CloneNo.:
230124E12

Applications

Tested Applications:
FC (Intra), Sandwich ELISA, Indirect ELISA

Species Specificity:
human

Product Information

82913-1-PBS targets PARK7/DJ-1 as part of a matched antibody pair:

MP80004-1: 82913-1-PBS capture and 68802-1-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications.Antibody use should be optimized by the end user for each application and assay.

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).

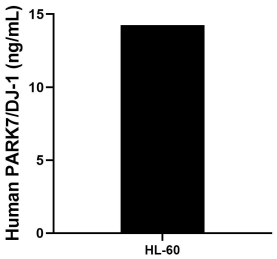
Storage

Storage:
Store at -80°C.
Storage Buffer:
PBS only, pH7.3

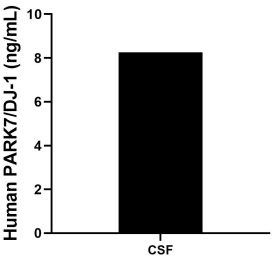
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

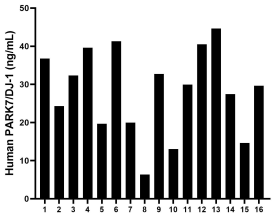
Selected Validation Data



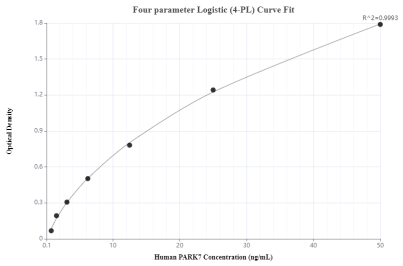
The mean human PARK7/DJ-1 concentration was determined to be 14.25 ng/mL in HL-60 cell extract based on a 4.3 mg/mL extract load.



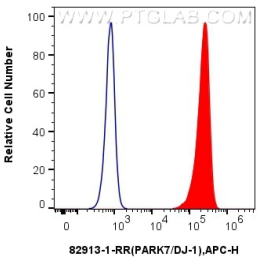
The human PARK7/DJ-1 concentration of Human cerebrospinal fluid (CSF) samples were determined to be 8.3 ng/mL.



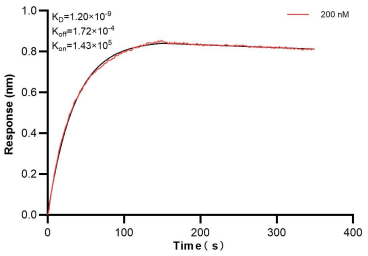
Serum of sixteen individual healthy human donors were measured. The human PARK7/DJ-1 concentration of detected samples was determined to be 28.3 ng/mL with a range of 6.3 - 44.6 ng/mL.



Sandwich ELISA standard curve of MP80004-1, Human PARK7/DJ-1 Monoclonal Matched Antibody Pair - PBS only. 82913-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag2287. 68802-1-PBS was HRP conjugated as the detection antibody. Range: 0.39-25 ng/mL.



1x10^6 HepG2 cells were intracellularly stained with 0.25 ug PARK7/DJ-1 Recombinant antibody (82913-1-RR, Clone:230124E12) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer. This data was developed using the same antibody clone with 82913-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assay of 82913-1-PBS against Human PARK7/DJ-1 was performed. The affinity constant is 1.20 nM.