

Product datasheet for **AP09257PU-N**

PARK7 (177-189) Rabbit Polyclonal Antibody

Product data:

| | |
|------------------------------|--|
| Product Type: | Primary Antibodies |
| Applications: | ELISA, IHC, WB |
| Recommended Dilution: | ELISA: 1:10,000 - 1:50,000. Immunohistochemistry on paraffin sections: 2 µg/ml - 5 µg/ml. Western blot: 1:500 - 1:2,000 (Expect a band approximately 28 kDa in size corresponding to PARK7 in the appropriate cell lysate or extract). |
| Reactivity: | Chimpanzee, Human, Monkey, Zebrafish |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | Synthetic peptide corresponding aa 177-189 of Human PARK7 protein |
| Specificity: | This antibody is specific for PARK7. |
| Formulation: | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide State: Aff - Purified State: Liquid sterile filtered Ig fraction |
| Concentration: | lot specific |
| Purification: | Immunoaffinity chromatography |
| Conjugation: | Unconjugated |
| Storage: | Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing. Should this product contain a precipitate we recommend microcentrifugation before use. |
| Stability: | Shelf life: one year from despatch. |
| Gene Name: | Parkinsonism associated deglycase |
| Database Link: | Entrez Gene 11315 Human Q99497 |



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Background:

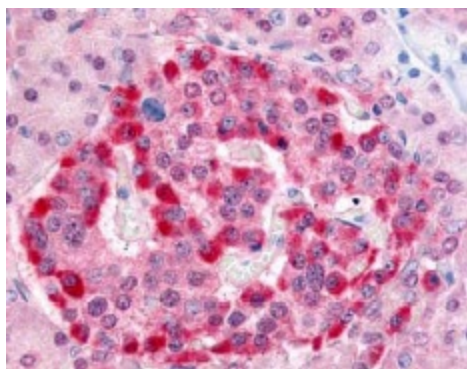
The product of the PARK7 gene, known as PARK7, Parkinson disease (autosomal recessive, early onset) 7, DJ-1 mutant, and DJ-1 oncogene product, functions as a positive regulator of androgen receptor-dependent transcription. PARK7 may also function as a redoxsensitive chaperone and as a sensor for oxidative stress and also has been reported to prevent aggregation of SNCA. PARK7 protects neurons against oxidative stress and cell death and plays a role in fertilization. While PARK7 has no proteolytic activity, it does have a weak transforming activity. PARK7 forms a homodimer and binds to DJBP and PIAS2. PARK7 is part of a ternary complex containing PARK7, DJBP and AR and shows both a nuclear and cytoplasmic localization. In some cells, PARK7 is associated with mitochondria, particularly after oxidative stress. This protein is highly expressed in pancreas, kidney, skeletal muscle, liver, testis and heart tissue, and is expressed at lower levels in placenta and brain. PARK7 is detected in tau inclusions in brains from neurodegenerative disease patients, in astrocytes, Sertoli cells, spermatogonia, spermatids and spermatozoa. Defects in PARK7 are the cause of autosomal recessive early-onset Parkinson's disease 7 (PARK7). Parkinson's disease (PD) is a complex, multifactorial disorder that is characterized by bradykinesia, resting tremor, muscular rigidity and postural instability, response to treatment with levodopa, the loss of dopaminergic neurons in the substantia nigra and the presence of Lewy bodies (intraneuronal accumulations of aggregated proteins) in surviving neurons.

Synonyms:

Oncogene DJ1, Parkinson disease protein 7

Product images:

Western blot analysis is shown using anti-Human PARK7 antibody to detect PARK7 present in Jurkat whole cell lysate. This western blot shows reactivity with human PARK7 protein. Comparison to a molecular weight marker indicates a predominant band of ~28.0 kDa. Peptide competition blocks specific reactivity of the antibody with PARK7 (not shown). A 16% Tris-Tricine gel was used to separate proteins prior to transfer to 0.2 um nitrocellulose. The blot was incubated with a 1:1,300 dilution of the antibody overnight at 4°C followed by detection using IRDye (TM)800 labeled Goat-a-Rabbit IgG [H&L] diluted 1:5,000 for 45 min at RT. IRDye (TM)800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



Immunohistochemistry. Anti-PARK7 antibody was used at a 5 ug/ml to detect PARK7 in a variety of tissues. In some tissues elevated background staining was noted. In these instances further optimization of dilution is suggested. This image shows PARK7 staining of human pancreas. Tissue was formalin fixed and paraffin embedded. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.