

#### **PINK1 Antibody**

PINK1 Antibody, Clone S4-15 Catalog # ASM10284

### **Specification**

## **PINK1 Antibody - Product Information**

Application
Primary Accession
Other Accession
Host

Isotype Reactivity Clonality **Description** 

Mouse Anti-Human PINK1 Monoclonal IgG1

Target/Specificity
Detects ~50kDa.

#### **Other Names**

Parkinson disease (autosomal recessive) 6 Antibody, EC 2.7.11.1 Antibody, PARK6 Antibody, serine/threonine-protein kinase PINK1 mitochondrial Antibody, PTEN-induced putative kinase protein 1 Antibody, protein kinase BRPK Antibody, BRPK Antibody, FLJ27236 Antibody, PTEN induced putative kinase 1 Antibody, Phosphatase and Tensin Homolog Antibody

## Immunogen

Fusion protein amino acids 112-496 (cytoplasmic C-terminus) of human PINK1. 82% identical to rat and 81% identical to mouse. >30% identity with DMPK.

ICC/IF, WB

NP 115785.1

**Monoclonal** 

Human, Mouse, Rat

O9BXM7.1

Mouse

IqG1

#### **Purification**

Protein G Purified

Storage -20°C

**Storage Buffer** 

PBS pH 7.4, 50% glycerol, 0.1% sodium azide

Shipping Temperature

Blue Ice or 4°C

**Certificate of Analysis** 

 $1 \mu g/ml$  of SMC-450 was sufficient for detection of PINK1 in 20  $\mu g$  of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

#### **Cellular Localization**

Mitochondrion | Mitochondrion Outer Membrane | Cytoplasm

### **PINK1 Antibody - Protocols**

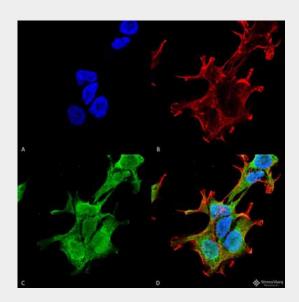
Provided below are standard protocols that you may find useful for product applications.

• Western Blot

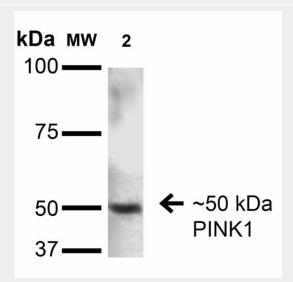


- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# **PINK1 Antibody - Images**



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-PINK1 Monoclonal Antibody, Clone S4-15 (ASM10284). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-PINK1 Monoclonal Antibody (ASM10284) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000; 1:5000 for 60 min RT, 5 min RT. Localization: Cytoplasm. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) PINK1 Antibody (D) Composite.



Western Blot analysis of Rat Brain showing detection of  $\sim 50$  kDa PINK1 protein using Mouse Anti-PINK1 Monoclonal Antibody, Clone S4-15 (ASM10284). Lane 1: Molecular Weight Ladder. Lane 2: Rat Brain. Load: 15  $\mu$ g. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse







Anti-PINK1 Monoclonal Antibody (ASM10284) at 1:200 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 1 hour RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~50 kDa.

## PINK1 Antibody - Background

PINK1 (PTEN induced putative kinase 1) is a mitochondrial serine/threonine kinase which maintains mitochondrial function/integrity, provides protection against mitochondrial dysfunction during cellular stress, potentially by phosphorylating mitochondrial proteins, and is involved in the clearance of damaged mitochondria via selective autophagy (mitophagy). PINK1 is synthesized as a 63 kD protein which undergoes proteolyt processing to generate at least two cleaved forms (55 kD and 42 kD). PINK1 and its substrates have been found in the cytosol as well as in different sub-mitochondrial compartments, and according to the recent reports; PINK1 may be targeted to OMM (outer mitochondrial membrane) with its kinase domain facing the cytosol, providing a possible explanation for the observed physical interaction with the cytosolic E3 ubiquitin ligase

Defective PINK1 may cause alterations in processing, stability, localization and activity as well as binding to substrates/interaction-partners which ultimately leads to differential effects on mitochondrial function and morphology. Mutations in PINK1 are linked to autosomal recessive early onset Parkinson's disease, and are associated with loss of protective function, mitochondrial dysfunction, aggregation of alpha-synuclein, as well as proteasome dysfunction.