## For Research Use Only

## Alpha Synuclein Monoclonal antibody, PBS Only (Detector)

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**Purification Method:** 

Protein A purification

CloneNo.:

1B10E9

Catalog Number: 66412-1-PBS

**Basic Information** 

Catalog Number: GenBank Accession Number: 66412-1-PBS BC013293

Concentration: GeneID (NCBI): 1000 µg/ml 6622

Source: UNIPROT ID: Mouse P37840
Isotype: Full Name:

IgG2a synuclein, alpha (non A4 component

Immunogen Catalog Number: of amyloid precursor)

AG1285 Calculated MW:

14 kDa Observed MW: 18-19 kDa

**Applications** 

**Tested Applications:** 

WB, IHC, IF-P, Sandwich ELISA, Indirect ELISA

Species Specificity: human, mouse, rat

## **Background Information**

Alpha Synuclein ( $\alpha$ -syn) is a 14-19 kDa phosphoprotein that is primarily localize to the presynaptic terminals of mature neurons, where it is involved in synaptic function and plasticity.  $\alpha$ -syn has drawn intense interest ever since the late 1990s, when the first  $\alpha$ -synuclein missense mutation was identified as a cause of familial Parkinson's disease (PD). Aggregated and hyper-phosphorylated forms of  $\alpha$ -syn protein are the pathological hallmark of Lewy body disease, which includes Parkinson's disease (PD), diffuse Lewy body disease (DLBD), and Lewy body variant of Alzheimer's disease (LBV). This antibody can recognize all the isoforms of  $\alpha$ -syn.

Storage

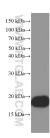
Storage:

Store at -80°C.

The product is shipped with ice packs. Upon receipt, store it immediately at -80°C  $\,$ 

Storage Buffer: PBS only, pH7.3

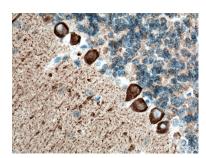
## Selected Validation Data



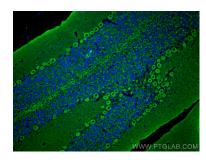
mouse brain tissue were subjected to SDS PAGE followed by western blot with 66412-1-lg (a-Synuclein Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66412-1-PBS in a different storage buffer formulation.



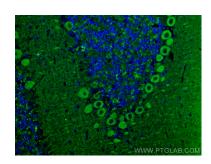
Immunohistochemical analysis of paraffinembedded mouse cerebellum tissue slide using 66412-1-lg (alpha-Synuclein antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66412-1-PBS in a different storage buffer formulation.



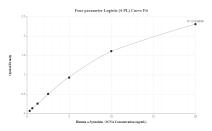
Immunohistochemical analysis of paraffinembedded mouse cerebellum tissue slide using 66412-1-lg (alpha-Synuclein antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66412-1-PBS in a different storage buffer formulation.



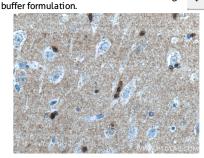
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse cerebellum tissue using Alpha Synuclein antibody (66412-1-lg, Clone: 1B10E9) at dilution of 1:400 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66412-1-PBS in a different storage



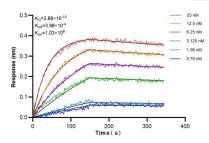
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse cerebellum tissue using Alpha Synuclein antibody (66412-1-Ig, Clone: 1B10E9) at dilution of 1:400 and Multi-rAb Coralite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66412-1-PBS in a different storage buffer formulation.



Sandwich ELISA standard curve of MP50043-1, a-Synuclein Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 60285-1-PBS. Detection antibody: 66412-1-PBS. Standard: Ag1285. Range: 0.313-20 ng/mL



Immunohistochemical analysis of paraffinembedded human brain tissue slide using 66412-1-1g (a-Synuclein antibody) at dilution of 1:500 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66412-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 66412-1-Ig against Human SNCA were performed. The affinity constant is 0.388 nM.