



Recombinant Protein Technical Manual  
Recombinant Mouse  $\alpha$ -Synuclein/SNCA Protein (His  
Tag)  
RPES3807

### Product Data:

**Product SKU:** RPES3807

**Size:** 10 $\mu$ g

**Species:** Mouse

**Expression host:** E. coli

**Uniprot:** O55042

### Protein Information:

**Molecular Mass:** 15.9 kDa

**AP Molecular Mass:** 18 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per  $\mu$ g as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Alpha-synuclein; Non-A beta component of AD amyloid; Non-A4 component of amyloid precursor; NACP; Snca

## Immunogen Information:

**Sequence:** Met1-Ala140

## Background:

Alpha-synuclein (Snca) belongs to a family of proteins including a-, b-, and g-synucleins. Alpha-synuclein has been found to be implicated in the pathophysiology of many neurodegenerative diseases, including Parkinson's disease (PD) and Alzheimer's disease. Many neurodegenerative diseases has shown that alpha-synuclein accumulates in dystrophic neurites and in Lewy bodies. The function of alpha-synuclein is closely correlated with its three-dimensional structure, especially for proteins important in the pathogenesis of neurodegenerative diseases. Alpha-synuclein is a dynamic molecule whose secondary structure depends on the environment. For example, it has an unfolded random coil structure in aqueous solution, forms a-helical structure upon binding to acidic phospholipid vesicles, and forms insoluble fibrils with a high b-sheet content that resemble the filaments found in Lewy bodies. Also, alpha-synuclein was known to associate with 14-3-3 proteins including protein kinase C, BAD, and extracellular regulated kinase, and overexpression of alpha-synuclein could contribute to cell death in neurodegenerative diseases.