



Product Information Sheet

Product Name:	Recombinant Human β -Synuclein (1-134)
Catalog Number:	AS-55458-100, AS-55458-500, AS-55458-1000
Lot Number:	See label on the vial
Amount/size:	100 μ g, 500 μ g, 1000 μ g
Source:	The sequence (Accession # NP_003076) corresponding to the human β -synuclein along with a 6x His tag was expressed in <i>E. coli</i> .
Purity:	Greater than 90% as determined by SDS-PAGE.
Endotoxin (EU/ μ g):	Less than 1 EU per 1 μ g of the protein as determined by Limulus Amebocyte Lysate (LAL) quantitative kinetic assay.
Storage:	Purified human β -synuclein is supplied as sterile and frozen at 1 mg/ml in the following buffer: 20 mM Tris-HCl, 0.1 M NaCl, 1 mM MgCl ₂ , pH 7.5. Store at 2-4 °C for immediate use within 1 week or at -80 °C for up to 6 months. Avoid repeated freeze-thaw cycles.
Instruction:	Beta-synuclein belongs to the family of highly conservative proteins in vertebrates. N-terminal of β -synuclein is highly homologous to α -, γ -synucleins and consists of degenerative "KTKEGV" repeats (1-4). Similar to α -synuclein, beta-synuclein is found primarily in the brain; however, it does not associate with Lewy bodies in Parkinson disease like α -synuclein (1-4). Beta-synuclein was found to inhibit production of phosphatidic acid by the phospholipase D2 transmembrane protein <i>in vitro</i> (1). In addition, beta-synuclein was detected in many breast and ovarian tumors (4). Recent investigations demonstrated that beta-synuclein can induce mild experimental autoimmune encephalomyelitis (EAE) in Lewis rats (5).

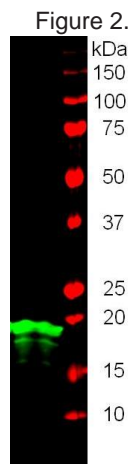
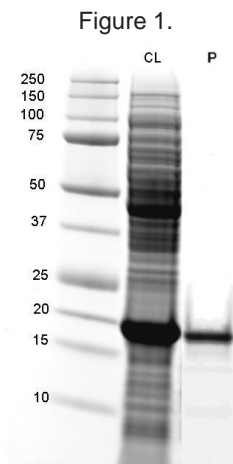


Figure 1. SDS-PAGE analysis of the recombinant human β -synuclein
Purified Human beta-synuclein was loaded onto 10-20% Tris-HCl gel at 8 μ g/well and resolved at 200V for 60 minutes. Protein markers are on the left, CL=crude cell lysate, P=purified beta-synuclein ~18 kDa that is different from its predicted mass.

Figure 2. Human beta-synuclein detected by Western blot
Purified Human beta-synuclein was run on SDS-PAGE and transferred onto nitrocellulose membrane. Beta-synuclein was detected using rabbit anti-synuclein-beta antibody (Cat.# 53879) in fluorescent Western blot.

For in vitro research use only.

Related Products

Product Name	Cat. #
EndoClear™Plus Human Recombinant human α - synuclein	AS-56081-100; AS-56081-500
EndoClear™ Human Recombinant human α - synuclein	AS-55555-100 AS-55555-500 AS-55555-1000
Recombinant human α - synuclein (1 - 140), HiLyte Fluor™488 labeled	AS-55457
Sensolyte® Anti-α-Synuclein (Human) ELISA Kit	AS-55550-H
Recombinant human α - synuclein (1 - 140), biotin labeled	AS-55581

References:

1. Rivers R.C. et. al. (2008) Protein Science 17: 887-898
2. Sung Y.-H. et. al. (2006) Protein Science 15: 1162-1174
3. George J. M. (2001) Genome Biology 3 (1): 3002.1-3002.6
4. Bruening W. et. al. (2000) American Cancer Society 88 (9): 2154-2163
5. Kela-Madar N. et. al. (2009) Journal of Neuroimmunology 208: 19-29