Division of Signal Transduction Therapy

Standard Operating Procedure

Preparation of Alpha Synuclein [1 - 140]

Enzyme description:- Alpha Synuclein [1 – 140]

Clone number:- DU 30005

Source:- Recombinant

Expression system:- *E.coli*,

Tag:- N-terminal GST

Purification method:- GSH Sepharose

Calculated molecular mass:-
Monoisotopic 41, 257.86 daltons
Average Mass 41, 284.32 daltons
[cysteines reduced, methionines have not been oxidised

Theoretical pI:- 5.13

Purity:- >80 %

Enzyme storage buffer:-
50 mM Tris-HCl pH 7.5, 150 mM NaCl, 270 mM sucrose, 0.1 mM EGTA, 0.1 % 2-mercaptoethanol, 0.03 % Brij-35, 1 mM benzamidine, 0.2 mM PMSF

Storage temperature:- -70 °C

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Clone Data Sheet

Alpha Synuclein [1 - 140]

Protein	Alpha Synuclein [1 - 140]
Clone number	DU 30005
Species	Human
Accession number	NM_001146054.1
Tags	N-terminal GST
Bacterially expressed protein	MSPILGYWKIKGLVQPTRLLLEYLEEKYEEHLYERDEGDKWRNKKFEL GLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLE GAVLDIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLN GDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPQIDKY LKSSKYIAWPLQGWQATFGGGDHPPKSDLEVLFQGPLGS**MDVFMKGLS KAKEGVVAAAEKTKQGVAEAAGKTKEGVLYVGSKTKEGVVHGVATVAE KTKEQVTNVGGAVVTGVTAVAQKTVEGAGSIAAATGFVKKDQLGKNEE GAPQEGILEDMPVDPDNEAYEMPSEEGYQDYEPEA**
Native sequence	Amino acids M1 – A140 (end) of human alpha synuclein. Residue M232 of fusion protein is equivalent to M1 of the native enzyme. The GST tag is located at residues 1 – 220.
Protease cleavage	Prescission site (LEVLFQGP) at residues 221 – 228
Cloning sites	*Bgl*2 (*Bam*H1 site) and *Not*1 site of pGex6P-1
Nucleotide sequence of insert	agatctATGGATGTATTCATGAAAGGACTTTCAAAGGCCAAGGAGGGA GTTGTGGCTGCTGCTGAGAAAACCAAACAGGGTGTGGCAGAAGCAGCA GGAAAGACAAAAGAGGGTGTTCTCTATGTAGGCTCCAAAACCAAGGAG GGAGTGGTGCATGGTGTGGCAACAGTGGCTGAGAAGACCAAAGAGCAA GTGACAAATGTTGGAGGAGCAGTGGTGACGGGTGTGACAGCAGTAGCC CAGAAGACAGTGGAGGGAGCAGGGAGCATTGCAGCAGCCACTGGCTTT GTCAAAAAGGACCAGTTGGGCAAGAATGAAGAAGGAGCCCCACAGGAA GGAATTCTGGAAGATATGCCTGTGGATCCTGACAATGAGGCTTATGAA ATGCCTTCTGAGGAAGGGTATCAAGACTACGAACCTGAAGCCtaagcg gccgc