MRC PPU Reagents and Services

Standard Operating Procedure

Preparation of SPIKE Protein RBD domain [319 - 541] SARS CoV2

Enzyme description:- S Protein RBD domain [319 - 541]

Clone number:- DU 67753

Source:- Recombinant

Expression system:- *E. coli*

Tag:- N-terminal MBP

Purification method:- Amylose resin

Calculated molecular mass:-
Monoisotopic 69, 293.75 daltons
Average Mass 69, 337.32 daltons
[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 5.43

Purity:- 85 %

Enzyme storage buffer:-
50 mM Tris-HCl pH 7.5, 270 mM Sucrose, 150 mM NaCl, 0.1 mM EGTA, 0.1 % 2-mercaptoethanol, 0.03 % Brij-35

Storage temperature:- –70 °C

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Clone Data Sheet

SPIKE Protein RBD domain [319 – 541] SARS CoV2

Protein	S Protein RBD domain [319 - 541]
Clone number	DU 67753
Accession number	QHD43416.1
Tags	N-terminal MBP
Bacterially expressed protein	MKIEEGKLVIWINGDKGYNGLAEVGKKFEKDTGIKVTVEHPDKLE EKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAFQDKL YPFTWDAVRYNGKLIAYPIAVEALSLIYNKDLLPNPPKTWEEIPA LDKELKAKGKSALMFNLQEPYFTWPLIAADGGYAFKYENGKYDIK DVGVDNAGAKAGLTFLVDLIKNKHMNADTDYSIAEAAFNKGETAM TINGPWAWSNIDTSKVNYGVTVLPTFKGQPSKPFVGVLSAGINAA SPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKSYEEELVKD PRIAATMENAQKGEIMPNIPQMSAFWYAVRTAVINAASGRQTVDE ALKDAQTNSSSNNNNNNNNNLGDDDDKVPEFLEVLFQGPLGS**RV QPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADY SVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVRQI APGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRL FRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPT NGVGYQPYRVVVLSFELLHAPATVCGPKKSTNLVKNKCVNF**
Native sequence	Amino acids R319 – F541 (end residue T1273). Residue R404 of the fusion protein is equivalent to R319 of the native enzyme. The MBP tag is located at residues 1 – 367.
Protease cleavage	Enterokinase (DDDDK) residues 384 – 388 PreScission (LEVLFQGP) residues 393 – 400