

SARS-CoV-2 E protein, GFP/His-tag

Full-length protein – GFP fusion

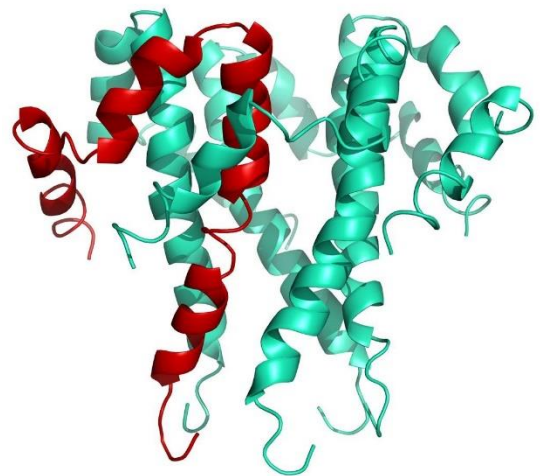
Cat. no. P2020-032

Product Information

Protein:	SARS-CoV-2 E protein, GFP/His-tag (~ 37.1 kDa)
Sequence:	MYSFVSEETGLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCCNIVNVSLVKPSFYVYSRVKLNLSRV PDLLV
	Methionin at pos. 1 present due to cloning constraints, N-terminal His-tag as well as C-terminal GFP not shown in sequence.
Source:	Recombinantly expressed in <i>E. coli</i> .
Tag(s):	GFP-His-TEV-tag, N-terminal
Purification:	Purified by affinity chromatography and subsequent buffer exchange.
Formulation:	PBS; pH 7.4
	Liquid, stored and shipped at -80 °C.
Purity:	> 85 % (will be determined by densitometry of Coomassie stained gel, example next page)
Concentration:	Will be determined by BCA-Assay.
Long-term storage:	No recommendations.
Comment:	Protein migrates at higher molecular weight during SDS-PAGE due to posttranslational modifications. Protein is fused at C-terminus with GFP.

Background Information:

The SARS-CoV-2 virus belongs to the group of enveloped viruses, this means the virus buds from the cell membrane and borrows a part of the membrane for its envelope. The presence of this additional barrier is essential for the stability of the virus, it protects it against external and environmental influences like disinfecting agents, it also facilitates the entering into the host cell. Embedded in the host's membrane around the virus are viral proteins like the spike protein trimer as well as an additional envelope (E) protein, whose function is not finally solved. It is suspected to establish the contact between the envelope membrane and the capsid. With only 75 AA it is rather small compared to the much larger spike protein complex (1273 AA). It is embedded in the virus envelope towards the outside and contacts the S and M proteins to guarantee the stability of the virus particle.



Structural model of pentameric Envelope protein of SARS-CoV-2. Single monomer highlighted in red.

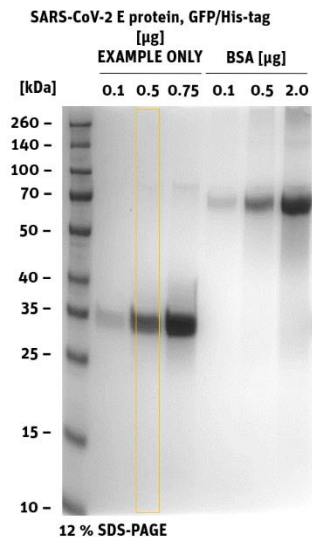
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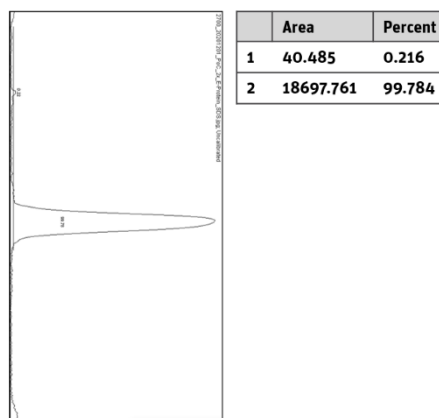
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Product Information

Quality Information (provided for each lot):



SDS-PAGE/Coll.Coomassie



Histogram (of marked lane in gel picture)