

Recombinant SARS Coronavirus Spike Glycoprotein (S1) Mosaic

Cat. No. HUM-320 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

SARS Coronavirus Spike Glycoprotein Mosaic is a recombinant antigen which contains amino acids 408-470 and 540-573 of the Spike protein immunodominant region. It is manufactured in E. coli and is immunoreactive with sera from SARS-infected individuals.

Background

The Severe acute respiratory syndrome-related coronavirus (SARS-CoV) causes severe acute respiratory syndrome (SARS). SARS originated in China in 2002 and quickly spread from China to other Asian countries. There were also a small number of cases in several other countries, including four in the UK, plus a significant outbreak in Toronto, Canada. The SARS pandemic was eventually brought under control in July 2003, following a policy of isolating people suspected of having the condition and screening all passengers travelling by air from affected countries for signs of the infection. During the period of infection, there were 8,098 reported cases of SARS and 774 deaths.

Coronavirus entry into cells is performed by the spike (S) envelope glycoprotein, which mediates both host cell receptor binding and membrane fusion. The S protein is classified as a class I viral fusion protein (Bosch et al., 2003) which can form very large trimers (monomer sizes are in the range of 180–200 kDa) and possessing heptad repeat regions (HR1 and HR2), requiring proteolytic cleavage for activation (Millet and Whittaker, 2018). A functional viral receptor for SARS-CoV has been identified using purified S1 which was shown to bind human angiotensin-converting enzyme (ACE2) (Li et al., 2003). Following receptor engagement, and depending on cell type, SARS-CoV is taken up by both clathrin and non-clathrin pathways.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	Purity ~90% as determined by SDS-PAGE.
Applications	For use in ELISA and other immunoassays.
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease
GENE INFORMATION	
Synonyms	SARS Coronavirus Spike Glycoprotein (S1) Mosaic

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