Datasheet for ABIN2754654

anti-hCoV-OC43 Spike antibody (AA 15-344)

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Overview

Quantity:	100 µg
Target:	hCoV-OC43 Spike (HCoV-OC43 S)
Binding Specificity:	AA 15-344
Reactivity:	Human Coronavirus OC43 (HCoV-OC43)
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This hCoV-OC43 Spike antibody is un-conjugated
Application:	ELISA, Immunofluorescence (IF), Western Blotting (WB)

Product Details

Immunogen:	Recombinant Human coronavirus OC43 Spike glycoprotein protein(15-344aa)
Isotype:	IgG
Purification:	Caprylic Acid Ammonium Sulfate Precipitation

Target Details

Target:	hCoV-OC43 Spike (HCoV-OC43 S)
Alternative Name:	OC43 Spike Glycoprotein (HCoV-OC43 S Products)
Target Type:	Viral Protein
Background:	S1 attaches the virion to the cell membrane by interacting with sialic acid-containing cell receptors, initiating the infection. S2 is a class I viral fusion protein. Under the current model, the

Target Details

	protein has at least 3 conformational states: pre-fusion native state, pre-hairpin intermediate state, and post-fusion hairpin state. During viral and target cell membrane fusion, the coiled coil regions (heptad repeats) assume a trimer-of-hairpins structure, positioning the fusion peptide in close proximity to the C-terminal region of the ectodomain. The formation of this structure appears to drive apposition and subsequent fusion of viral and target cell membranes.
UniProt:	P36334

Application Details

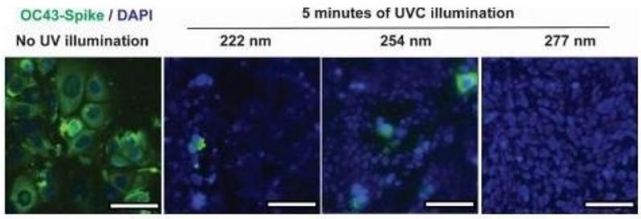
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C/-80 °C

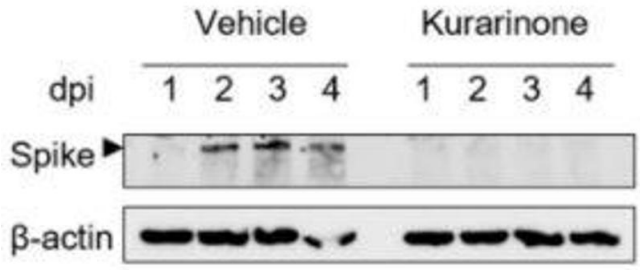
Publications

Product cited in:	Kim, Jeong, Yu, Shin, Ku, Cha, Han, Hong, Kim, Kim, Woo, Bae: "Efficient Human Cell Coexpression System and Its Application to the Production of Multiple Coronavirus Antigens." in: **Advanced biology**, Vol. 5, Issue 4, pp. e2000154, (2021) (PubMed). Wang, Li, Zhou, Wiltse, Zand: "Antibody Mediated Immunity to SARS-CoV-2 and Human Coronaviruses: Multiplex Beads Assay and Volumetric Absorptive Microsampling to Generate Immune Repertoire Cartography." in: **Frontiers in immunology**, Vol. 12, pp. 696370, (2021) (PubMed). Min, Kim, Jin, Kwon: "Kurarinone Inhibits HCoV-OC43 Infection by Impairing the Virus-Induced Autophagic Flux in MRC-5 Human Lung Cells." in: **Journal of clinical medicine**, Vol. 9, Issue 7, (2020) (PubMed).



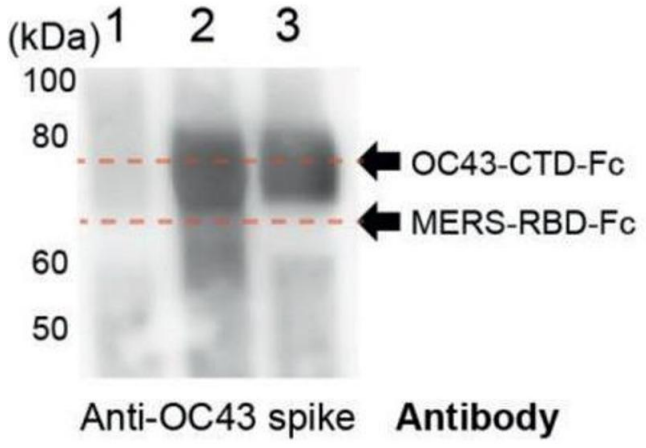
Immunofluorescence

Image 1. Infection of human lung cell line, HCT-8 from irradiated and untreated hCoV-OC43. Green fluorescence indicates infected cells while blue fluorescence indicates DAPI stains of nuclei. Images were acquired with a 40x objective, with the scale bars at 50 µm.



Western Blotting

Image 2. Western blot of the lysates of HCoV-OC43-infected MRC-5 cell streated with kurarinone or vehicle and evaluated at 1,2,3, and 4dpi. The HCoV-OC43 Spike protein was detected and indicated by an arrow head as shown; β-actin was used as a loading control.



Western Blotting

Image 3. Purified protein identities were further confirmed by Western blot analysis using an anti-OC43 spike antibody. Dotted red lines indicate the positions of the MERS and OC43 antigens. Source: 10.1002/adbi.202000154