

## Anti SARS-CoV-2 S (Spike) protein-antibody, mouse monoclonal (G2)

65-103 50µg

**Shipping and Storage:** Ship at 4°C or -20°C and store at -20°C. Do not freeze.

**Immunogens:** RBD (receptor-binding domain) within SARS-CoV-2 Spike protein

**Form:** 1 mg/ml in PBS- with 50% glycerol, filter-sterilized, azide-free.

**Purification:** IgG fraction, affinity-purified with Protein A

**Isotype:** murine IgG1 kappa

**Reactivity:** Receptor Binding Domain of SARS-CoV-2 Spike protein.

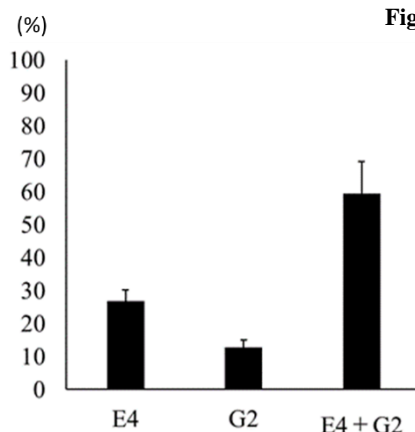
Neutralizing activity is synergistic with a monoclonal antibody E4 clone.

### Applications :

1. Neutralizing antibody assay (as a positive control)

**Background:** New coronavirus (SARS-CoV-2) suddenly emerged in Wuhan City, China, at the end of 2019. SARS-CoV-2 gradually became attenuated in the process of transitioning to alpha strain, delta strain, and more recent mutant strains called BA.2, BA.5, BA.2.75. Currently, Omicron strain vaccines developed by Moderna and Pfizer use mRNA derived from BA.2 viruses, but most of the prevalent virus strains are now replaced by BA.5 and BA.2.75 mutant strains.

This mouse monoclonal antibody (MAbs) was developed as a tool for research of the mutant strains in which SARS-CoV-2 gradually changes. The S-protein of SARS-CoV-2 is cleaved into S1 and S2 subunits containing RBD regions by subtilisin-like protease Furin in host cells. Epitope-recognizing MAb E4 derived from RBD regions in S1 subunit of the S-protein recognize neutralizing epitope. It reacts to the same extent as any of the previously predominant SARS-CoV-2 mutants. Neutralizing activity is strongly with E4 MAb and weak with G2 MAb. An interesting point is that significant synergism is found in the presence of both MAbs (1:1).



**Fig. 1. The binding inhibition activities of monoclonal antibodies.**

Inhibition of binding activities of CoV-2 RBD to ACE2 (SARS-CoV-2 receptor molecules) by monoclonal antibodies, E4, G2 and E4+G2 was measured by using Detection Kit (MBL, CODE 5360).

### Related Products 65-102 Anti SARS-CoV-2 S (spike) Protein-Ab (E4), 50 µg

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.