

## Anti-Norovirus GII.4 P domain [A1431] Bulk Size Ab02974-10.0-BT

**Isotype and Format:** Human IgG1, Kappa

**Clone Number:** A1431

**Alternative Name(s) of Target:** VP1; NoV; HuNoV; NoV VP1; capsid protein VP1; major capsid protein; Norovirus GII.4; Norwalk virus

**UniProt Accession Number of Target Protein:** S5YAA0

**Published Application(s):** neutralize, Block, ELISA

**Published Species Reactivity:** Norovirus

**Immunogen:** The original antibody was isolated from an anti-NoV GII.4c IgG serum antibody repertoire generated from three donors that experienced a significant increase in GII.4 titer after immunization with the bivalent GII.4c + GI.1 VLP vaccine.

**Specificity:** This antibody recognizes conserved residues distal to the HBGA binding pocket but accessible on the assembled VLP. It binds each P domain monomer at a cleft between the P1 and P2 subdomains. Norovirus (NoVs) is one of the main pathogens causing sporadic cases and large outbreaks of acute gastroenteritis, and norovirus can infect people of all ages.

**Application Notes:** This antibody showed broad blockade towards to all known historical GII.4 strains from 1987 onwards and neutralized the pandemic GII.P16-GII.4 Sydney strain. This antibody is also capable of blocking the VLP binding to histoblood group antigens (HBGAs). Structure revealed conserved epitopes, which were occluded on the virion or partially exposed, allowing for broad blockade with neutralizing activity. The HBGA blocking assay was used to characterize A1431 against a panel of pandemic norovirus GII.4 strains. ELISA was used to determine the binding specificity of the antibody for GII.4c VLP (PMID: 31216462).

**Antibody First Published in:** Lindesmith et al. Sera Antibody Repertoire Analyses Reveal Mechanisms of Broad and Pandemic Strain Neutralizing Responses after Human Norovirus Vaccination. Immunity. 2019 Jun 18;50(6):1530-1541. [PMID:31216462](#)

**Note on publication:** Describes the generation of this antibody and study of its crystal structure.

### Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:**

PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.