abcam

ab284050

Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR24853-4
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Transfected cell line - SARS-CoV-2
Dilution info	-

Notes	-

Expected

Species	SARS-CoV-2
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Transfected cell line - SARS-CoV-2
Dilution info	-
Notes	Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes.

Expected

Species	SARS-CoV-2
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - SARS-CoV-2
Dilution info	-
Notes	-

Expected

Species	SARS-CoV-2
Dilution info	Use at an assay dependent concentration.
Notes	-

ELISA

Tested

Species	SARS-CoV-2
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - SARS-CoV-2
Dilution info	-
Notes	-

WB

Tested

Species	SARS-CoV-2
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - SARS-CoV-2
Dilution info	-
Notes	-

Target data

See full target information rep

Function

Replicase polyprotein 1ab. Multifunctional protein involved in the transcription and replication of viral RNAs. Contains the proteinases responsible for the cleavages of the polyprotein. Host translation inhibitor nsp1. Inhibits host translation by associating with the open head conformation of the 40S subunit (PubMed:32680882, PubMed:32908316, PubMed:33080218, PubMed:33479166). The C-terminus binds to and obstructs ribosomal mRNA entry tunnel (PubMed:32680882, PubMed:32908316, PubMed:33080218, PubMed:33479166).

Thereby inhibits antiviral response triggered by innate immunity or interferons (PubMed:32680882, PubMed:32979938, PubMed:33080218). The nsp1-40S ribosome complex further induces an endonucleolytic cleavage near the 5'UTR of host mRNAs, targeting them for degradation (By similarity). This inhibits the integrated stress response (ISR) in the infected cell by preventing EIF2S1/eIF2-alpha phosphorylation upstream of stress granule formation and depletes host G3BP1 (PubMed:36534661). Viral mRNAs less susceptible to nsp1-mediated inhibition of translation, because of their 5'-end leader sequence (PubMed:32908316, PubMed:33080218). Non-structural protein 2. Enhances mRNA repression of the 4EHP-GYF2 complex in the host, thereby inhibiting the antiviral response and facilitating SARS-CoV-2 replication. Possibly acts in cooperation with nsp1, which induces ribosome stalling on host mRNA, triggering mRNA repression by the host 4EHP-GYF2 complex which is enhanced by nsp2. Papain-like protease nsp3. Responsible for the cleavages located at the N-terminus of the replicase polyprotein. Participates together with nsp4 in the assembly of virally-induced cytoplasmic double-membrane vesicles necessary for viral replication (PubMed:35551511). Antagonizes innate immune induction of type I interferon by blocking the phosphorylation, dimerization and subsequent nuclear translocation of host IRF3 (PubMed:32733001). Also prevents host NF-kappa-B signaling (By similarity). In addition, PL-PRO possesses a deubiquitinating/deISGylating activity and processes both 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains from cellular substrates (PubMed:32726803). Cleaves preferentially ISG15 from antiviral protein IFIH1 (MDA5), but not RIGI (PubMed:33727702). Can play a role in host ADP-ribosylation by ADP-ribose (PubMed:32578982). Plays a role in the formation and maintenance of double membrane vesicles (DMVs) replication organelles (PubMed:35551511). DMVs are formed by nsp3 and nsp4, while nsp6 zippers ER membranes and connects to lipid droplets (PubMed:35551511). Non-structural protein 4. Plays a role in the formation and maintenance of double membrane vesicles (DMVs) replication organelles (PubMed:35551511). DMVs are formed by nsp3 and nsp4, while nsp6 zippers ER membranes and connects to lipid droplets (PubMed:35551511). 3C-like proteinase nsp5. Cleaves the C-terminus of replicase polyprotein at 11 sites (PubMed:32321856). Recognizes substrates containing the core sequence [ILMVF]-Q-|-[SGACN] (PubMed:32198291, PubMed:32272481). Cleaves and inactivates human TRMT1, preventing tRNA guanine(26)-dimethylation of tRNAs (PubMed:37073102, PubMed:38814682, PubMed:39773525). May cleave human NLRP1 in lung epithelial cells, thereby activating the NLRP1 inflammasome pathway (PubMed:35594856). May cleave human GSDMD, triggering alternative GSDME-mediated epithelial cell death upon activation of the NLRP1 inflammasome, which may enhance the release interleukins 1B, 6, 16 and 18 (PubMed:35594856). Also able to bind an ADP-ribose-1''-phosphate (ADRP) (PubMed:32198291, PubMed:32272481). Non-structural protein 6. Plays a role in the formation and maintenance of double membrane vesicles (DMVs) replication organelles (PubMed:35551511). DMVs are formed by nsp3 and nsp4, while nsp6 zippers ER membranes and connects to lipid droplets (PubMed:35551511). LDs are consumed during DMV formation (PubMed:35551511). Binds to host TBK1 without affecting TBK1 phosphorylation; the interaction with TBK1 decreases IRF3 phosphorylation, which leads to reduced IFN-beta production (PubMed:32979938). Non-structural protein 7. Plays a role in viral RNA synthesis (PubMed:32277040, PubMed:32358203, PubMed:32438371, PubMed:32526208). Forms a hexadecamer with nsp8 (8 subunits of each) that may participate in viral replication by acting as a primase. Alternatively, may synthesize substantially longer products than oligonucleotide primers (By similarity). Non-structural protein 8. Plays a role in viral RNA synthesis (PubMed:32277040, PubMed:32358203, PubMed:32438371, PubMed:32526208). Forms a hexadecamer with nsp7 (8 subunits of each) that may

participate in viral replication by acting as a primase. Alternatively, may synthesize substantially longer products than oligonucleotide primers (By similarity). Interacts with ribosome signal recognition particle RNA (SRP) (PubMed:33080218). Together with NSP9, suppress protein integration into the cell membrane, thereby disrupting host immune defenses (PubMed:33080218). Viral protein genome-linked nsp9. Forms a primer, NSP9-pU, which is utilized by the polymerase for the initiation of RNA chains (PubMed:37794589). Interacts with ribosome signal recognition particle RNA (SRP) (PubMed:33080218). Together with NSP8, suppress protein integration into the cell membrane, thereby disrupting host immune defenses (PubMed:33080218). Non-structural protein 10. Plays a pivotal role in viral transcription by stimulating both nsp14 3'-5' exoribonuclease (By similarity) and nsp16 2'-O-methyltransferase activities (PubMed:35944563). Therefore plays an essential role in viral mRNAs cap methylation. RNA-directed RNA polymerase nsp12. RNA-directed RNA polymerase that catalyzes the transcription of viral genomic and subgenomic RNAs. Acts in complex with nsp7 and nsp8 to transcribe both the minus and positive strands of genomic RNA (PubMed:32277040, PubMed:32358203, PubMed:32438371, PubMed:32526208). The kinase-like NiRAN domain of NSP12 attaches one or more nucleotides to the amino terminus of NSP9, forming a covalent RNA-protein intermediate that serves as transcription/replication primer (PubMed:37794589). Subgenomic RNAs (sgRNAs) are formed by discontinuous transcription: The polymerase has the ability to pause at transcription-regulating sequences (TRS) and jump to the leader TRS, resulting in a major deletion (PubMed:35706445). This creates a series of subgenomic RNAs that are replicated, transcribed and translated (PubMed:35706445). In addition, Nsp12 is a subunit of the viral RNA capping enzyme that catalyzes the RNA guanylyltransferase reaction for genomic and sub-genomic RNAs (PubMed:35944563). Subsequently, the NiRAN domain transfers RNA to GDP, and forms the core cap structure GpppA-RNA (PubMed:35944563). Helicase nsp13. Plays a role in viral RNA synthesis (PubMed:33232691). Multi-functional protein with a zinc-binding domain in N-terminus displaying RNA and DNA duplex-unwinding activities with 5' to 3' polarity. Activity of helicase is dependent on magnesium (By similarity). Binds to host TBK1 and inhibits TBK1 phosphorylation; the interaction with TBK1 decreases IRF3 phosphorylation, which leads to reduced IFN-beta production (PubMed:32979938). Guanine-N7 methyltransferase nsp14. Plays a role in viral RNA synthesis through two distinct activities. The N7-guanine methyltransferase activity plays a role in the formation of the cap structure GpppA-RNA (PubMed:35944563). The proofreading exoribonuclease reduces the sensitivity of the virus to RNA mutagens during replication (By similarity). This activity acts on both ssRNA and dsRNA in a 3'-5' direction (By similarity). Uridylate-specific endoribonuclease nsp15. Plays a role in viral transcription/replication and prevents the simultaneous activation of host cell dsRNA sensors, such as MDA5/IFIH1, OAS, and PKR (By similarity). Acts by degrading the 5'-polyuridines generated during replication of the poly(A) region of viral genomic and subgenomic RNAs (PubMed:33504779, PubMed:33564093). Catalyzes a two-step reaction in which a 2'3'-cyclic phosphate (2'3'-cP) is first generated by 2'-O transesterification, which is then hydrolyzed to a 3'-phosphate (3'-P) (PubMed:33504779, PubMed:33564093). If not degraded, poly(U) RNA would hybridize with poly(A) RNA tails and activate host dsRNA sensors (By similarity). May bind genomic dsRNA in association with the replication-transcription complex (RTC), and play a role in nsp12 discontinous transcription (PubMed:34562452, PubMed:35706445). 2'-O-methyltransferase nsp16. Methyltransferase that mediates mRNA cap 2'-O-ribose methylation to the 5'-cap structure of viral mRNAs (PubMed:35944563). N7-methyl guanosine cap is a prerequisite for binding of nsp16 (PubMed:35944563). Therefore, it plays an essential role in cap methylation

of viral mRNAs, which is essential to evade the immune system, especially when restricted by human IFIT1 and IFIT3 (PubMed:35944563, PubMed:36722972, PubMed:36285486). May disrupt host mRNA splicing in nucleus by interacting with pre-mRNA Recognition Domains of the U1 and U2 snRNAs (PubMed:33080218).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab284050 is the carrier free version of ab284036

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	SARS-CoV-2 nsp2 also known as non-structural protein 2 is a protein encoded by the SARS-CoV-2 virus. It has a predicted mass of around 67 kDa. Nsp2 is expressed during the early stages of the virus replication cycle inside the host cells particularly in the cytoplasm. This protein interacts with host cell components but its functional mechanisms remain partially understood. Studies suggest it might play a role in modifying host cell environment to facilitate viral replication or assembly.
Biological function summary	Within the framework of viral infection processes nsp2 does not form part of a well-defined multimeric complex. However evidence indicates that it can impact host cell signaling pathways. Specifically nsp2 may exert influence on cellular signaling through its interactions with host proteins potentially altering important cellular processes like immune responses. These interactions suggest a possible adaptation strategy that the virus utilizes to maintain persistence and replication advantage within the host organism.
Pathways	The role of nsp2 is implicated in both viral replication and host cell response pathways. For instance nsp2 potentially affects pathways such as the NF-kB signaling pathway known for regulating immune responses and inflammation. It also appears related to the MAPK signaling pathway which controls various cellular activities including growth and differentiation. Within these pathways nsp2 may interact with host proteins like kinases although detailed interaction networks require further investigation.
Associated diseases and disorders	SARS-CoV-2 nsp2 is most directly connected with COVID-19 the disease caused by the virus. Its possible role in modifying host cell pathways suggests involvement in disease severity possibly linked to immune dysregulation observed in severe cases of the illness. Moreover while nsp2's direct interactions with other viral proteins such as nsp12 the RNA-dependent RNA polymerase are less documented their combined effects significantly impact the virus's ability to replicate and evade host defenses.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

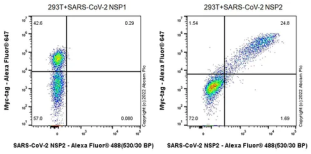
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images

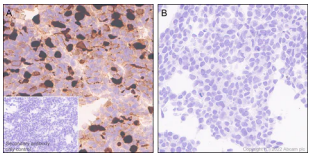


Flow Cytometry (Intracellular) - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

SARS-CoV-2 nsp2 Flow Cytometry (Intracellular) staining using rabbit Anti-SARS-CoV-2 nsp2 antibody

Flow cytometric analysis 4% Paraformaldehyde fixed 90% methanol permeabilised HEK-293T (Human embryonic kidney epithelial) cells transfected with a SARS-CoV-2 nsp1 (Left) or SARS-CoV-2 nsp2 (Right) expression vector containing a myc tag labelling SARS-CoV-2 nsp2 with ab284036 at 1/500 dilution. Goat anti rabbit IgG (Alexa Fluor® 488) (ab150081) at 1/5000 dilution was used as the secondary antibody.
ab284036 doesn’ t cross-react with SARS-CoV-2 nsp1.

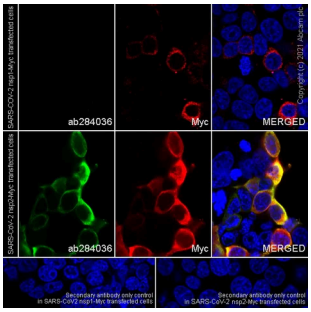
This data was developed using ab284036, the same antibody clone in a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

SARS-CoV-2 nsp2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SARS-CoV-2 nsp2 antibody

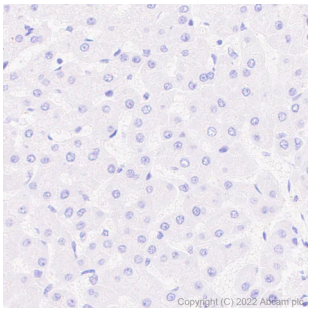
Immunohistochemical analysis of Paraffin-embedded sections Human (A) HEK-293T transfected with SARS-CoV-2 NSP2 expression vector containing a his tag and (B) HEK-293T transfected empty vector containing a his tag tissue labelling SARS-CoV-2 nsp2 with ab284036 at 1/100 dilution, followed by LeicaDS9800 (Bond® Polymer Refine Detection)(Ready to use). HEK-293T transfected with SARS-CoV-2 NSP2 expression vector containing a his tag staining on Human (A) HEK-293T transfected with SARS-CoV-2 NSP2 expression vector containing a his tag, (B) HEK-293T transfected empty vector containing a his tag is observed. Positive staining on HEK-293T transfected with SARS-CoV-2 NSP2 expression vector containing a his tag (Image A); No staining on HEK-293T transfected empty vector containing a his tag (Image B). The section was incubated with ab284036 for 30 mins at room temperature. Counterstained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is LeicaDS9800 (Bond® Polymer Refine Detection)(Ready to use). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Heat mediated antigen retrieval using Bond® Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. This data was developed using ab284036, the same antibody clone in a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

SARS-CoV-2 nsp2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SARS-CoV-2 nsp2 antibody

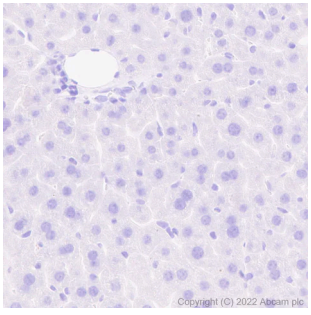
Immunofluorescent analysis of 4% Paraformaldehyde fixed 0.1% TritonX-100 permeabilised HEK-293T (Human embryonic kidney 293) cells labelling Anti-SARS-CoV-2 nsp2 with ab284036 at 1/100 dilution, followed by AlexaFluor® 488 Goat anti-Rabbit secondary (ab150081) antibody at 1/1000 dilution. Confocal image showing cytoplasmic staining in HEK-293T cells transfected with a SARS-CoV-2 nsp2 expression vector containing a myc tag, and no staining in HEK-293T cells transfected with a SARS-CoV-2 nsp1 expression vector containing a myc tag is observed. Myc-Tag Mouse mab (Alexa Fluor® 647) was used to counterstain Myc-Tag at 1/100 dilution (Red). The Nuclear counterstain was DAPI. Secondary antibody only control: AlexaFluor® 488 Goat anti-Rabbit (ab150081) at 1/1000 dilution. This data was developed using ab284036, the same antibody clone in a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

Immunohistochemical analysis of Paraffin-embedded sections Human Liver tissue labelling SARS-CoV-2 nsp2 with ab284036 at 1/100 dilution (5 µg/ml), followed by LeicaDS9800 (Bond® Polymer Refine Detection)(Ready to use). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is LeicaDS9800 (Bond® Polymer Refine Detection)(Ready to use).
Negative control: no staining on human liver. The section was incubated with ab284036 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument
Heat mediated antigen retrieval using Bond® Epitope Retrieval Solution 2 (pH 9.0) for 30 minutes.

This data was developed using ab284036, the same antibody clone in a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

SARS-CoV-2 nsp2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse Liver using rabbit Anti-SARS-CoV-2 nsp2 antibody

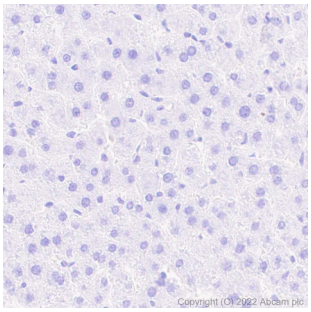
Immunohistochemical analysis of Paraffin-embedded sections Mouse Liver tissue labelling SARS-CoV-2 nsp2 with ab284036 at 1/100 dilution (5 µg/ml), followed by LeicaDS9800 (Bond® Polymer Refine Detection)(Ready to use). Counterstained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is LeicaDS9800 (Bond® Polymer Refine Detection)(Ready to use).

Negative control: no staining on mouse liver. The section was incubated with ab284036 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Heat mediated antigen retrieval using Bond® Epitope Retrieval Solution 2 (pH 9.0) for 30 minutes.

This data was developed using ab284036, the same antibody clone in a different buffer formulation.

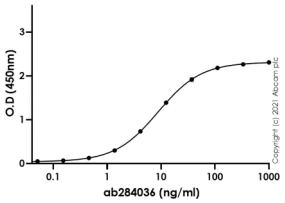


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

SARS-CoV-2 nsp2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat Liver using rabbit Anti-SARS-CoV-2 nsp2 antibody

Immunohistochemical analysis of Paraffin-embedded sections Rat Liver tissue labelling SARS-CoV-2 nsp2 with ab284036 at 1/100 dilution (5 µg/ml), followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is LeicaDS9800 (Bond® Polymer Refine Detection) at Ready to use dilution.
Negative control: no staining on rat liver. The section was incubated with ab284036 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.
Heat mediated antigen retrieval using Bond® Epitope Retrieval Solution 2 (pH 9.0) for 30 minutes.

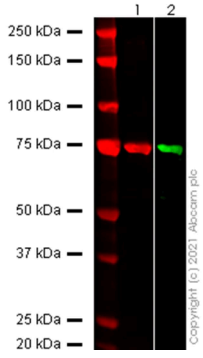
This data was developed using ab284036, the same antibody clone in a different buffer formulation.



ELISA - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

This data was developed using ab284036, the same antibody clone in a different buffer formulation.
Indirect ELISA showing primary antibody ab284036 binding to recombinant SARS-COV-2 NSP2 protein (His-tag). Plates were coated with recombinant SARS-COV-2 NSP2 protein (His-tag) at 1000 ng/ml. Binding of ab284036 was assessed in a serial dilution range 0.016- 1000 ng/mL (a 3-fold serial dilution).

Binding was detected using pre-adsorbed secondary antibody, goat anti-rabbit IgG H&L (HRP, ab97080) at 1/2000 dilution.



Western blot - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

This data was developed using ab284036, the same antibody clone in a different buffer formulation.
Observed band size: 75 kDa

Lanes 1: Red – loading control ab18184 (Mouse monoclonal [HIS.H8] to 6X His tag®) observed at 75 kDa.

Lanes 2: Green – ab284036 observed at 75 kDa

ab284036 was shown to bind specifically to SARS-CoV-2 NSP2 protein in Western blot. Samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were

Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.

Blocking buffer: 5% milk in TBS-0.1% Tween® 20 (TBS-T)
All lanes:
Western blot - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] (ab284036) at 1/1000 dilution

All lanes:
Recombinant SARS-CoV2 NSP2 protein (His tagged) at 0.2 µg

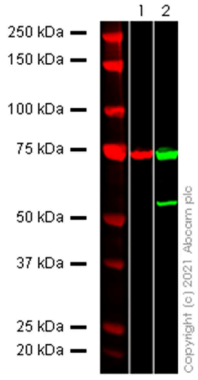
Secondary

Lane 1:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/20000 dilution

Lane 2:
Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.

Lane 2:
Western blot - Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) at 1/20000 dilution

Observed band size: 75 kDa



Western blot - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] - BSA and Azide free (ab284050)

This data was developed using ab284036, the same antibody clone in a different buffer formulation.
Observed band size: 75 kDa

Lanes 1: Red – loading control ab18184 (Mouse monoclonal [HIS.H8] to 6X His tag®) observed at 75 kDa.

Lanes 2: Green – ab284036 observed at 75 kDa

ab284036 was shown to bind specifically to SARS-CoV-2 NSP2 protein in Western blot. Samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.

Blocking buffer: 5% milk in TBS-0.1% Tween® 20 (TBS-T)

All lanes:
Western blot - Anti-SARS-CoV-2 nsp2 antibody [EPR24853-4] (ab284036) at 1/1000 dilution

All lanes:
Expi293 cells transfected with SARS-CoV2 NSP2 protein (His tagged) at 10 µg

Secondary

All lanes:
Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution

Observed band size: 75 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.