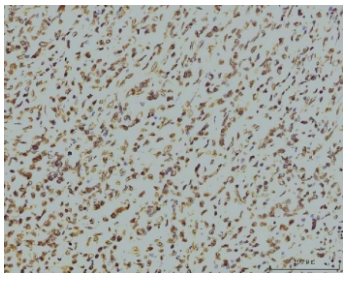
Replication Protein A2 Antibody / RPA32 / RPA2 [clone 3B2E9] (RQ6589)

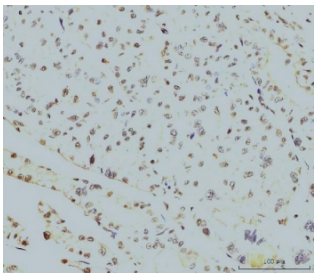
Catalog No.	Formulation	Size
RQ6589	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

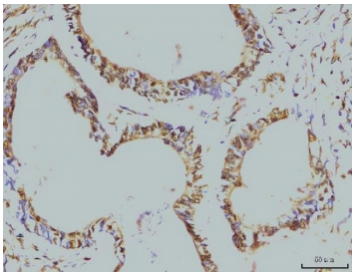
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	3B2E9
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P15927
Localization	Nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence (FFPE) : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Replication Protein A2 antibody is available for research use only.



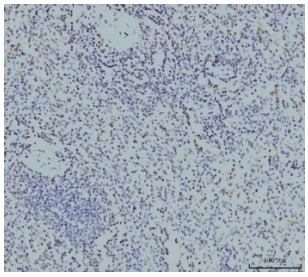
IHC staining of FFPE human stomach cancer tissue with Replication Protein A2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



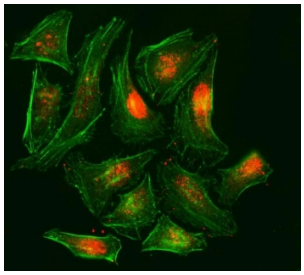
IHC staining of FFPE human liver cancer tissue with Replication Protein A2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



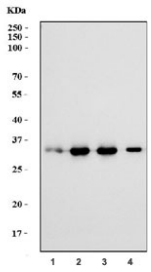
IHC staining of FFPE human colonic adenocarcinoma tissue with Replication Protein A2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



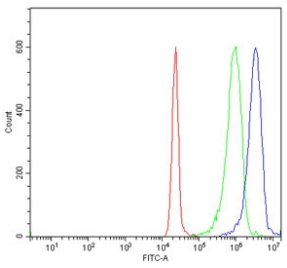
IHC staining of FFPE human spleen tissue with Replication Protein A2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of FFPE human HeLa cells with Replication Protein A2 antibody (Dylight 594-conjugated secondary, red) and Phalloidin-iFluor 488 conjugate (green). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) U-2 OS, 2) HEKK293, 3) Jurkat and 4) K562 cell lysate with Replication Protein A2 antibody. Expected molecular weight ~32 kDa.



Flow cytometry testing of human JK-1 cells with Replication Protein A2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Replication Protein A2 antibody.

Description

This gene encodes a subunit of the heterotrimeric Replication Protein A (RPA) complex, which binds to single-stranded DNA (ssDNA), forming a nucleoprotein complex that plays an important role in DNA metabolism, being involved in DNA replication, repair, recombination, telomere maintenance, and co-ordinating the cellular response to DNA damage through activation of the ataxia telangiectasia and Rad3-related protein (ATR) kinase. The RPA complex protects single-stranded DNA from nucleases, prevents formation of secondary structures that would interfere with repair, and co-ordinates the recruitment and departure of different genome maintenance factors. The heterotrimeric complex has two different modes of ssDNA binding, a low-affinity and high-affinity mode, determined by which oligonucleotide/oligosaccharide-binding (OB) domains of the complex are utilized, and differing in the length of DNA bound. This subunit contains a single OB domain that participates in high-affinity DNA binding and also contains a winged helix domain at its carboxy terminus, which interacts with many genome maintenance protein. Post-translational modifications of the RPA complex also plays a role in co-ordinating different damage response pathways.

Application Notes

Optimal dilution of the Replication Protein A2 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids Q34-H254) was used as the immunogen for the Replication Protein A2 antibody.

Storage

After reconstitution, the Replication Protein A2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.