



Rabbit Anti-RFC1 antibody

SL11304R

Product Name:	RFC1
Chinese Name:	复制激活因子C1抗体
Alias:	DNA binding Protein PO GA; DNA-binding protein PO-GA; MHC binding factor beta; MHC BFB; RECC1; Replication factor C 140 kDa subunit; Replication factor C; Replication factor C large subunit; Replication factor C subunit 1; Replication factor C1; RF-C 140 kDa subunit; RFC1; RFC1_HUMAN; RFC140; RFC140 Replication Factor C 140 kDa subunit; A1 140 kDa subunit; A1 P145 Activator 1 large subunit; Activator 1 140 kDa subunit; Activator 1 large subunit; Activator 1 subunit 1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Pig, Cow, Horse, Rabbit,
Applications:	WB=1:500-2000 ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 ICC=1:100-500 IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	128kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human RFC1:401-500/1148
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	?Replication factor C (RFC) is an essential DNA polymerase accessory protein that is required for numerous aspects of DNA metabolism, including DNA replication, DNA

repair and telomere metabolism. RFC is a heteropentameric complex that recognizes a primer on a template DNA, binds to a primer terminus and loads proliferating cell nuclear antigen (PCNA) onto DNA at primer-template junctions in an ATP-dependent reaction. All five of the RFC subunits share a set of related sequences (RFC boxes) that include nucleotide-binding consensus sequences. Four of the five RFC genes (including RFC1, RFC2, RFC3 and RFC4) have consensus ATP-binding motifs. The small RFC proteins, RFC2, RFC3, RFC4 and RFC5, interact with Rad24, whereas the RFC1 subunit does not. RFC1 is a substrate for caspase-3 in vitro and is cleaved by a caspase-3-like protease during FAS-mediated apoptosis. In addition, phosphorylation of the PCNA binding domain of RFC1 by Ca²⁺/calmodulin-dependent protein kinase II (CaMKII) inhibits DNA synthesis. The human RFC1 gene maps to chromosome 4p14 and encodes the RFC1 subunit.

Function:

The elongation of primed DNA templates by DNA polymerase delta and epsilon requires the action of the accessory proteins PCNA and activator 1. This subunit binds to the primer-template junction. Binds the PO-B transcription element as well as other GA rich DNA sequences. Could play a role in DNA transcription regulation as well as DNA replication and/or repair. Can bind single- or double-stranded DNA. Interacts with C-terminus of PCNA. 5' phosphate residue is required for binding of the N-terminal DNA-binding domain to duplex DNA, suggesting a role in recognition of non-primer template DNA structures during replication and/or repair.

Subunit:

Heterotetramer of subunits RFC2, RFC3, RFC4 and RFC5 that can form a complex either with RFC1 or with RAD17. The former interacts with PCNA in the presence of ATP, while the latter has ATPase activity but is not stimulated by PCNA.

Subcellular Location:

Nucleus.

Tissue Specificity:

Wide tissue distribution. Undetectable in placental tissue.

Post-translational modifications:

Phosphorylated upon DNA damage, probably by ATM or ATR.

Similarity:

Belongs to the activator 1 large subunit family.
Contains 1 BRCT domain.

SWISS:

P35251

Gene ID:

5981

Database links:

[Entrez Gene: 422788](#) Chicken

[Entrez Gene: 5981](#) Human

[Entrez Gene: 19687](#) Mouse

[Entrez Gene: 89809](#) Rat

[Omim: 102579](#) Human

[SwissProt: P35251](#) Human

[SwissProt: P35601](#) Mouse

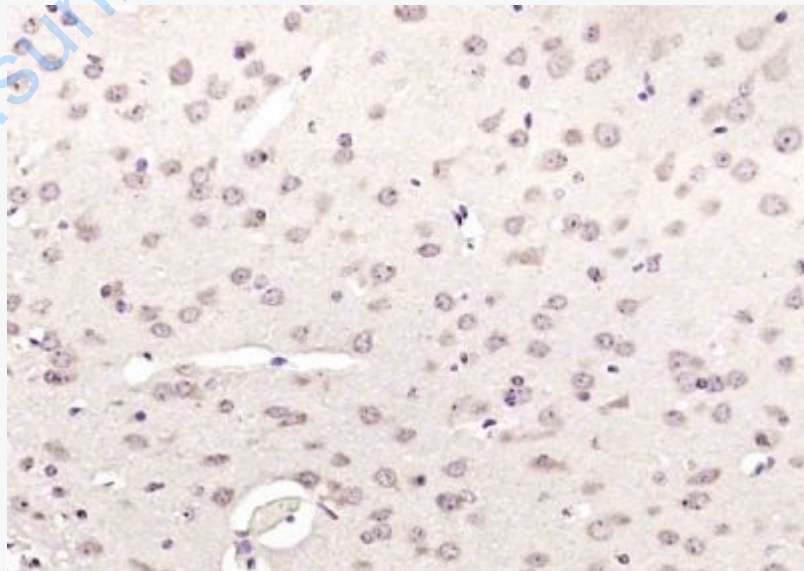
[Unigene: 507475](#) Human

[Unigene: 148877](#) Mouse

Important Note:

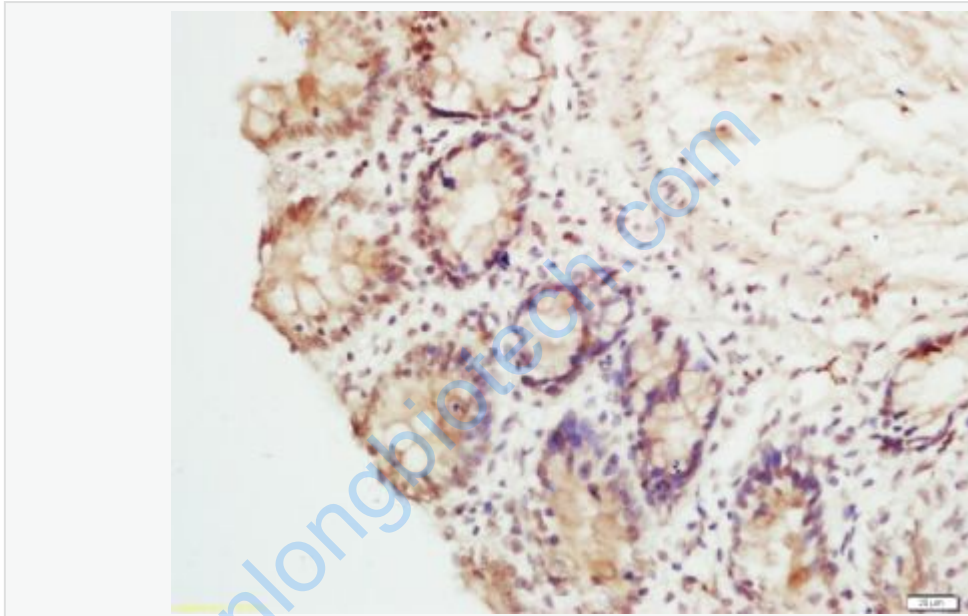
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Picture:



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by

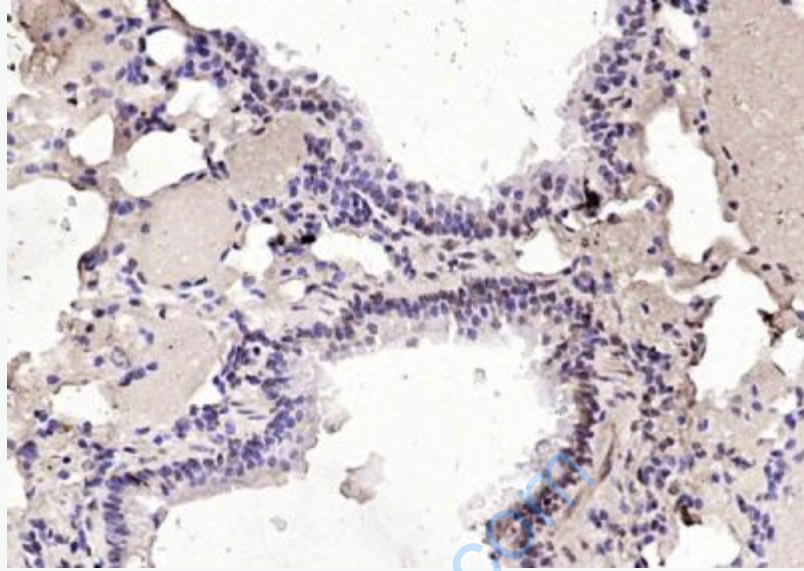
3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RFC1) Polyclonal Antibody, Unconjugated (SL11304R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



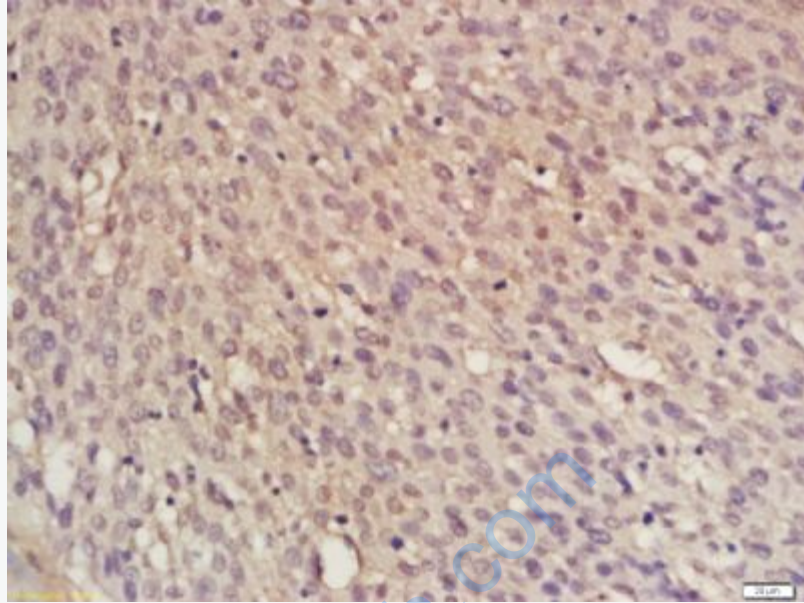
Tissue/cell: mouse intestine tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-RFC1 Polyclonal Antibody, Unconjugated(SL11304R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (mouse lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RFC1) Polyclonal Antibody, Unconjugated (SL11304R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: human laryngo carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-RFC1 Polyclonal Antibody, Unconjugated(SL11304R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining