

# HUS1 Rabbit pAb

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Catalog # AP56952

## Product Information

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<b>Application</b>	IHC-P, IHC-F, IF
<b>Primary Accession</b>	<a href="#">O60921</a>
<b>Reactivity</b>	Rat
<b>Predicted</b>	Human, Mouse, Pig, Horse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	31691
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human HUS1
<b>Epitope Specificity</b>	51-150/280
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Nucleus. Cytoplasm. In discrete nuclear foci upon DNA damage. According to PubMed:14500360, localized also in the cytoplasm. DNA damage induces its nuclear translocation. Shuttles between the nucleus and the cytoplasm.
<b>SIMILARITY</b>	Belongs to the HUS1 family.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	The protein encoded by this gene is a component of an evolutionarily conserved, genotoxin-activated checkpoint complex that is involved in the cell cycle arrest in response to DNA damage. This protein forms a heterotrimeric complex with checkpoint proteins RAD9 and RAD1. In response to DNA damage, the trimeric complex interacts with another protein complex consisting of checkpoint protein RAD17 and four small subunits of the replication factor C (RFC), which loads the combined complex onto the chromatin. The DNA damage induced chromatin binding has been shown to depend on the activation of the checkpoint kinase ATM, and is thought to be an early checkpoint signaling event. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2011]

## Additional Information

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<b>Gene ID</b>	3364
<b>Other Names</b>	Checkpoint protein HUS1, hHUS1, HUS1
<b>Target/Specificity</b>	Ubiquitous.
<b>Dilution</b>	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

**Storage** Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

## Protein Information

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**Name** HUS1

**Function** Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair (PubMed:[21659603](#)). The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17-replication factor C (RFC) clamp loader complex (PubMed:[21659603](#)). Acts then as a sliding clamp platform on DNA for several proteins involved in long- patch base excision repair (LP-BER) (PubMed:[21659603](#)). The 9-1-1 complex stimulates DNA polymerase beta (POLB) activity by increasing its affinity for the 3'-OH end of the primer-template and stabilizes POLB to those sites where LP-BER proceeds; endonuclease FEN1 cleavage activity on substrates with double, nick, or gap flaps of distinct sequences and lengths; and DNA ligase I (LIG1) on long-patch base excision repair substrates (PubMed:[21659603](#)). The 9-1-1 complex is necessary for the recruitment of RHNO1 to sites of double-stranded breaks (DSB) occurring during the S phase (PubMed:[21659603](#)).

**Cellular Location** Nucleus. Cytoplasm, cytosol. Note=In discrete nuclear foci upon DNA damage (PubMed:11077446). According to PubMed:11077446, localized also in the cytoplasm (PubMed:11077446). DNA damage induces its nuclear translocation (PubMed:11077446). Shuttles between the nucleus and the cytoplasm (PubMed:11077446).

**Tissue Location** Ubiquitous..

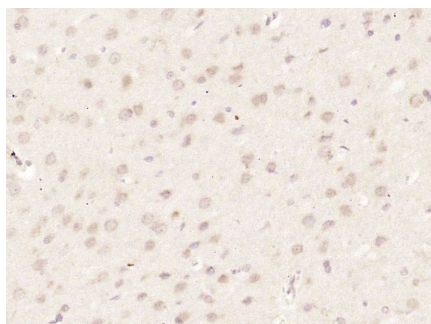
## Background

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## Images

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Paraformaldehyde-fixed, paraffin embedded (rat 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 (HUS1) Polyclonal Antibody, Unconjugated (AP56952) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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