

# BANF1 Rabbit mAb

Catalog # AP74889

## Product Information

Application	WB
Primary Accession	<a href="#">O75531</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	10059

## Additional Information

Gene ID	8815
Other Names	BANF1
Dilution	WB~~1/500-1/1000
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.

## Protein Information

Name	BANF1 {ECO:0000303 PubMed:21549337, ECO:0000312 HGNC:HGNC:17397}
Function	<p>Non-specific DNA-binding protein that plays key roles in mitotic nuclear reassembly, chromatin organization, DNA damage response, gene expression and intrinsic immunity against foreign DNA (PubMed:<a href="#">10908652</a>, PubMed:<a href="#">11792822</a>, PubMed:<a href="#">12163470</a>, PubMed:<a href="#">18005698</a>, PubMed:<a href="#">25991860</a>, PubMed:<a href="#">28841419</a>, PubMed:<a href="#">31796734</a>, PubMed:<a href="#">32792394</a>). Contains two non-specific double-stranded DNA (dsDNA)-binding sites which promote DNA cross-bridging (PubMed:<a href="#">9465049</a>). Plays a key role in nuclear membrane reformation at the end of mitosis by driving formation of a single nucleus in a spindle-independent manner (PubMed:<a href="#">28841419</a>). Transiently cross-bridges anaphase chromosomes via its ability to bridge distant DNA sites, leading to the formation of a dense chromatin network at the chromosome ensemble surface that limits membranes to the surface (PubMed:<a href="#">28841419</a>). Also acts as a negative regulator of innate immune activation by restricting CGAS activity toward self-DNA upon acute loss of nuclear membrane integrity (PubMed:<a href="#">32792394</a>). Outcompetes CGAS for DNA-binding, thereby preventing CGAS activation and subsequent damaging autoinflammatory responses (PubMed:<a href="#">32792394</a>). Also involved in DNA damage response: interacts with PARP1 in response to oxidative stress, thereby inhibiting the ADP-ribosyltransferase activity of PARP1 (PubMed:<a href="#">31796734</a>). Involved in the recognition of exogenous dsDNA</p>

in the cytosol: associates with exogenous dsDNA immediately after its appearance in the cytosol at endosome breakdown and is required to avoid autophagy (PubMed:[25991860](#)). In case of poxvirus infection, has an antiviral activity by blocking viral DNA replication (PubMed:[18005698](#)).

### Cellular Location

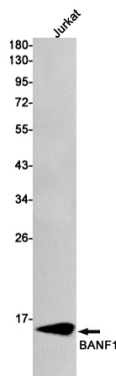
Nucleus. Chromosome. Nucleus envelope. Cytoplasm. Note=Significantly enriched at the nuclear inner membrane, diffusely throughout the nucleus during interphase and concentrated at the chromosomes during the M-phase (PubMed:16495336, PubMed:24600006). The phosphorylated form (by VRK1) shows a cytoplasmic localization whereas the unphosphorylated form locates almost exclusively in the nucleus (PubMed:16495336, PubMed:24600006). May be included in HIV-1 virions via its interaction with viral GAG polyprotein (PubMed:14645565)

### Tissue Location

Widely expressed. Expressed in colon, brain, heart, kidney, liver, lung, ovary, pancreas, placenta, prostate, skeletal muscle, small intestine, spleen and testis. Not detected in thymus and peripheral blood leukocytes.

## Images

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