

anti- RAG2 antibody

Product Information

Catalog No.:	FNab07089
Size:	100µg
Form:	liquid
Purification:	Immunogen affinity purified
Purity:	\geq 95% as determined by SDS-PAGE
Host:	Rabbit
Clonality:	polyclonal
Clone ID:	None
IsoType:	IgG
Storage:	PBS with 0.02% sodium azide and 50% glycerol pH 7.3, -20°C for 12 months (Avoid repeated freeze / thaw cycles.)

Background

Core component of the RAG complex, a multiprotein complex that mediates the DNA cleavage phase during V(D)J recombination. V(D)J recombination assembles a diverse repertoire of immunoglobulin and T-cell receptor genes in developing B and T-lymphocytes through rearrangement of different V(variable), in some cases D(diversity), and J(joining) gene segments. DNA cleavage by the RAG complex occurs in 2 steps: a first nick is introduced in the top strand immediately upstream of the heptamer, generating a 3'-hydroxyl group that can attack the phosphodiester bond on the opposite strand in a direct transesterification reaction, thereby creating 4 DNA ends: 2 hairpin coding ends and 2 blunt, 5'-phosphorylated ends. The chromatin structure plays an essential role in the V(D)J recombination reactions and the presence of histone H3 trimethylated at 'Lys-4'(H3K4me3) stimulates both the nicking and haipinning steps. The RAG complex also plays a role in pre-B cell allelic exclusion, a process leading to expression of a single immunoglobulin heavy chain allele to enforce clonality and monospecific recognition by the B-cell antigen receptor(BCR) expressed on individual B-lymphocytes. The introduction of DNA breaks by the RAG complex on one immunoglobulin allele induces ATM-dependent repositioning of the other allele to pericentromeric heterochromatin, preventing accessibility to the RAG complex and recombination of the second allele. In the RAG complex, RAG2 is not the catalytic component but is required for all known catalytic activities mediated by RAG1. It probably acts as a sensor of chromatin state that recruits the RAG complex to H3K4me3(By similarity).

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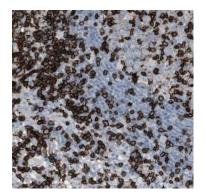


Immunogen information

Immunogen:	recombination activating gene 2
Synonyms:	None
Observed MW:	57-62 kDa
UniprotID :	P55895

Application

Reactivity:Human, MouseTested Application:ELISA, WB, IHC, IF, FC, IPRecommended dilution:WB: 1:500-1:2000; IP: 1:200-1:1000; IHC: 1:20-1:200; IF: 1:20-1:200Image:



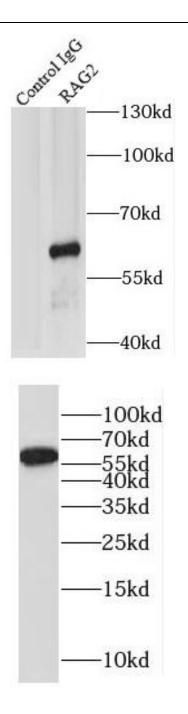
Immunohistochemistry of paraffin-embedded human lymphoma using FNab07089(RAG2 antibody) at dilution of 1:50

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IP Result of anti-RAG2 (IP:FNab07089, 4ug; Detection:FNab07089 1:300) with A375 cells lysate 3600ug.

A375 cells were subjected to SDS PAGE followed by western blot with FNab07089(RAG2 antibody) at dilution of 1:300

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