



[Go to Product page](#)

Datasheet for ABIN7175271
anti-RAG2 antibody (AA 296-415) (Biotin)

Overview

Quantity:	100 µg
Target:	RAG2
Binding Specificity:	AA 296-415
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This RAG2 antibody is conjugated to Biotin
Application:	ELISA

Product Details

Immunogen:	Recombinant Human V(D)J recombination-activating protein 2 protein (296-415AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	RAG2
Alternative Name:	RAG2 (RAG2 Products)
Background:	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

Target Details

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 hairpinning 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).

Aliases: RAG 2 antibody, RAG-2 antibody, RAG2 antibody, RAG2_HUMAN antibody, Recombination activating gene 2 antibody, V(D)J recombination activating protein 2 antibody, V(D)J recombination-activating protein 2 antibody

UniProt: [P55895](#)

Pathways: [Chromatin Binding](#), [Production of Molecular Mediator of Immune Response](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Preservative: 0.03 % Proclin 300
Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be

Handling

handled by trained staff only.

Storage: -20 °C,-80 °C

Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.