Recombinant Human TRAV21 Protein, His-tagged

Cat. No. TRAV21-69H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TRAV21 Protein, fused to His-tag, was expressed in E. coli.
Species	Human
Source	E.coli
Description	T cell receptors recognize foreign antigens which have been processed as small peptides and bound to major histocompatibility complex (MHC) molecules at the surface of antigen presenting cells (APC). Each T cell receptor is a dimer consisting of one alpha and one beta chain or one delta and one gamma chain. In a single cell, the T cell receptor loci are rearranged and expressed in the order delta, gamma, beta, and alpha. If both delta and gamma rearrangements produce functional chains, the cell expresses delta and gamma. If not, the cell proceeds to rearrange the beta and alpha loci. This region represents the germline organization of the T cell receptor alpha and delta loci. Both the alpha and delta loci include V (variable), J (joining), and C (constant) segments and the delta locus also includes diversity (D) segments. The delta locus is situated within the alpha locus, between the alpha V and J segments. During T cell development, the delta chain is synthesized by a recombination event at the DNA level joining a D segment with a J segment; a V segment is then joined to the D-J gene. The alpha chain is synthesized by recombination joining a single V segment with a J segment. For both chains, the C segment is later joined by splicing at the RNA level. Recombination of many different V segments with several J segments provides a wide range of antigen recognition. Additional diversity is attained by junctional diversity, resulting from the random additional of nucleotides by terminal

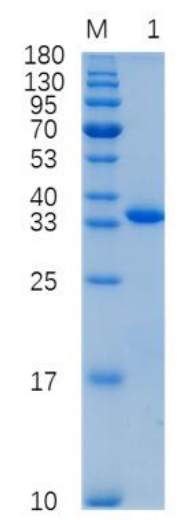
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	deoxynucleotidyltransferase. Five variable segments can be used in either alpha or delta chains and are described by TRAV/DV symbols. Several V and J segments of the alpha locus are known to be incapable of encoding a protein and are considered pseudogenes.
Form	Supplied as a 0.2 μm filtered solution in PBS, pH7.4.
Molecular Mass	~38.2 kDa
AA Sequence	MGKQEVTQIPAALSVPEGENLVLNCSFTDSAIYNLQWFRQDPGKGLTSLLLITPWQR EQTSGRLNASLDKSSGRSTLYIAASQPGDSATYLCAVRPLLDGTYIPTFGRGTSLIVH PYIQNPDPAVYQLRDSKSSDKSVCLFTDFDSQTNVSQSKDSDVYITDKGGGGSGGG GSGGGGSGVTQTPKFQVLKTGQSMTLQCAQDMNHEYMSWYRQDPGMGLRLIHYS VAIQTTDQGEVPNGYNVSRSTIEDFPLRLLSAAPSQTSVYFCASSYLGNTGELFFGE GSRLTVLEDLKNVFPPEVAVFEPSEAEISHTQKATLVCLATGFYPDHVELSWWVNGK EVHSGVHHHHHH
Purity	>90%
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Concentration	1.6 mg/mL

GENE INFORMATION

Gene Name	TRAV21 T cell receptor alpha variable 21 [Homo sapiens (human)]
Official Symbol	TRAV21
Synonyms	TCRAV21S1; TCRAV23S1

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Gene ID	28662
UniProt ID	A0A0B4J279
SDS-PAGE	 12% reducing SDS-PAGE analysis of purified LYC15 (approximately 1 mg protein loaded).

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