

Recombinant Human TRAV12-2 Protein, His-tagged

Cat. No. TRAV12-2-05H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TRAV12-2 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 PBS, pH 8.0

Molecular Mass 51.2 kDa

AA Sequence

MHHHHHHAKEVEQNSGPLSVPEGAIASLNCTYSDRGSQSFFWYRQYSGKSPELIM
FIYSNGDKEDGRFTAQLNKASQYVSLLRDSQPSDSATYLCVNFSGGKLIFGQGT
LSVKPNIQNPDPVYQLRDSKSSDKSVCLFTDFDSQTNVSQSKDSDVYITDKCVLDM
RSMDFKSNSAVAWSNKSDFACANAFNNSIIPEDTFFPSPEGGGGSGGGGSGGGGS
MIAGITQAPTSQILAAGRRMTLRCTQDMRHNAMYWYRQDLGLGLRLIHYSNTAGTT
GKGEVPDGYSVSRANTDDFPLTLASAVPSQTSVYFCASSLSFGTEAFFGQGTRLTV
VEDLNKVFPPPEVAVFEPSEAEISHTQKATLVCLATGFYPDHVELSWWVNGKEVHSG
VCTDPQPLKEQPALNDSRYALSSRLRVSATFWQDPRNHFRQCQVQFYGLSENDEWT
QDRAKPVTQIVSAEAWGRAD

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 1.0 mg/ml

GENE INFORMATION

Gene Name TRAV12-2 T cell receptor alpha variable 12-2 [Homo sapiens (human)]

Official Symbol TRAV12-2

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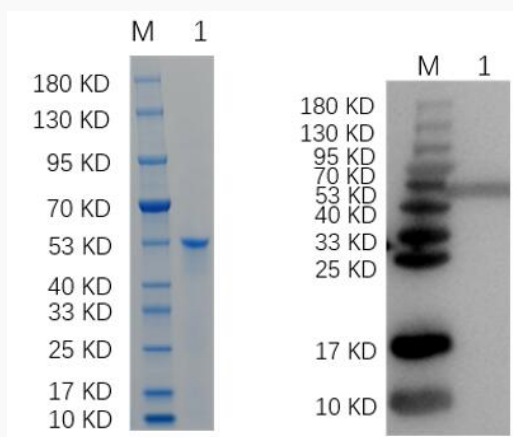
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Synonyms TRAV122; TCRAV2S1; TCRAV12S2

Gene ID 28673

UniProt ID A0A075B6T6



Reducing 12% SDS-PAGE and WB analysis profile of purified 215C

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